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Thyristors, Triacs, AC switches and A.S.D™



High commutation and voltage immunity
for life automation



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Product symbols

Thyristor (SCR)



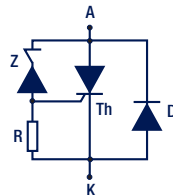
Triac



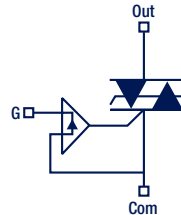
Diac



Application-specific ignitor



ACS™



ACST



Packages

SURFACE MOUNT PACKAGES (BY CURRENT CAPABILITY)



D²PAK



DPAK



SMBflat 3L



SOT-223



SO-20



SO-8



Minimelf



SOT23

THROUGH-HOLE PACKAGES (BY CURRENT CAPABILITY)



RD-91



TOP3



TO-220AB



ISOWATT220AB



TO-220FPAB



TO-202-3



IPAK



DO-35



TO-92

ACST OVERVOLTAGE SELF-PROTECTED SWITCHES

Part number	Package	RMS on-state current $I_{T(RMS)}$	Repetitive peak off-state voltage V_{DRM}/V_{RRM}	Non-repetitive surge peak on-state current I_{TSM}	Junction temperature (T_J)	Triggering gate current I_{GT} (I, II, III)	Clamping voltage V_{CL} (@ 100 μ A)	Rate of decrease of commutating on-state current (di/dt) _c min (@ T_J max)	Rising ratio of off voltage dV/dt (@ T_J max)
		max (A)	max (V)	max (A)	max (°C)	max (mA)	min (V)	min (A/ms)	min (V/ μ s)
ACST210-8	DPAK, TO-220FPAB	2	800	8	125	10, 10, 10	850	0.5 ⁽²⁾	500
ACST410-8	DPAK, TO-220FPAB	4	800	30	125	10, 10, 10	850	2 ⁽²⁾	500
ACST435-8	DPAK, TO-220FPAB	4	800	30	125	35, 35, 35	850	5	1000
ACST610-8	D2PAK, TO-220AB, TO-220FPAB	6	800	45	125	10, 10, 10	850	3.5	500
ACST830-8	D2PAK, TO-220AB, TO-220FPAB	8	800	80	125	30, 30, 30	850	8	2000
ACST1010-7	TO-220AB, TO-220FPAB	10	700	100	125	10, 10, 10	850	4.4 ⁽²⁾	200
ACST1035-8	TO-220FPAB	10	800	100	150	35, 35, 35	850	10 ⁽³⁾ / 5 ⁽³⁾⁽¹⁾	4000 / 2000 ⁽¹⁾
ACST1210-7	D2PAK, TO-220AB	12	700	120	125	10, 10, 10	850	5.3 ⁽²⁾	200
ACST1235-8	TO-220FPAB	12	800	120	150	35, 35, 35	850	12 ⁽³⁾ / 6 ⁽²⁾⁽¹⁾	4000 / 2000 ⁽¹⁾
ACST1635-8	TO-220FPAB	16	800	140	150	35, 35, 35	850	12 ⁽³⁾ / 4 ⁽³⁾⁽¹⁾	1000 / 300 ⁽¹⁾

Notes:

(1) Specified at 125 °C / 150 °C

(2) With snubber at 15 V/ μ s

(3) Without snubber

ACS™ OVERVOLTAGE SELF-PROTECTED SWITCHES

Part number	Package	RMS on-state current $I_{T(RMS)}$	Repetitive peak off-state voltage V_{DRM}/V_{RRM}	Non-repetitive surge peak on-state current I_{TSM}	Junction temperature (T_J)	Triggering gate current I_{GT} (II, III)	Clamping voltage V_{CL} (@ 100 μ A)	Rate of decrease of commutating on-state current with snubber at 15 V/ μ s (di/dt)c min (@ T_J max)	Rising ratio of off voltage dV/dt (@ T_J max)
		max (A)	max (V)	max (A)	max ($^{\circ}$ C)	max (mA)	min (V)	min (A/ms)	min (V/ μ s)
ACS102-6T	SO-8, TO-92 GLASS	0.2	600	7.3	125	5-5	650	0.15	300
ACS302-6	SO-20	3 x 0.2	600	7.3	125	5-5	650	0.15	300
ACS108-8SUF	SMBflat-3L	0.8	800	13	125	10-10	650	2	400 ⁽¹⁾
ACS108-8	SOT-223, TO-92 GLASS	0.8	800	13	125	10-10	850	2	400
ACS110-7	SOT-223	1	700	8	125	10-10	750	0.5	500
ACS120-7	DPAK, TO-220AB, TO-220FPAB	2	700	20	125	10-10	750	1	500

Note:

(1) With snubber at 15 V/ μ s

T-SERIES HIGH-PERFORMANCE TRIACS

Part number	Package	Triac type	RMS on-state current $I_{T(RMS)}$	Repetitive peak off-state voltage V_{DRM}/V_{RRM}	Non-repetitive surge peak on-state current I_{TSM}	Junction temperature (T_J)	Triggering gate current I_{GT} (I, II, III, IV)	Rate of decrease of commutating on-state current (dI/dt) _c (@ T_J max)	Rising rate of off voltage dV/dt (@ T_J max)
			max (A)	max (V)	max (A)	max (°C)	max (mA)	min (A/ms)	min (V/μs)
4A									
T435T-600FP	TO-220FPAB	Snubberless™	4	600 @ 125 °C	30	125	35, 35, 35	5.3 @ 125 °C	750 @ 125 °C
6 A									
BTA06T-600CWRG	TO-220AB Ins	Snubberless™	6	600 @ 125 °C	45	125	35, 35, 35	8 @ 125 °C	750 @ 125 °C
T610T-8T ⁽¹⁾	TO-220AB	Logic level tab non insulated	6	600 @ 150 °C or 800 @ 125 °C	45	150 or 125	10, 10, 10	5.5 @ 125 °C or 3.3 @ 150 °C ⁽²⁾	100 @ 125 °C or 50 @ 150 °C
T610T-8FP ⁽¹⁾	TO-220FPAB	Logic level	6	600 @ 150 °C or 800 @ 125 °C	45	150 or 125	10, 10, 10	5.5 @ 125 °C or 3.3 @ 150 °C ⁽²⁾	100 @ 125 °C or 50 @ 150 °C
T635T-8FP	TO-220FPAB	Snubberless™	6	600 @ 150 °C or 800 @ 125 °C	45	150 or 125	35, 35, 35	6 @ 125 °C or 3 @ 150 °C	2000 @ 125 °C or 1000 @ 150 °C
T635T-8T	TO-220AB	Snubberless™ tab non insulated	6	600 @ 150 °C or 800 @ 125 °C	45	150 or 125	35, 35, 35	6 @ 125 °C or 3 @ 150 °C	2000 @ 125 °C or 1000 @ 150 °C
8 A									
T810T-8T ⁽¹⁾	TO-220AB	Logic level tab non insulated	8	600 @ 150 °C or 800 @ 125 °C	60	150 or 125	10, 10, 10	6 @ 125 °C or 3.3 @ 150 °C ⁽²⁾	100 @ 125 °C or 50 @ 150 °C
T810T-8FP ⁽¹⁾	TO-220FPAB	Logic level	8	600 @ 150 °C or 800 @ 125 °C	60	150 or 125	10, 10, 10	6 @ 125 °C or 3.3 @ 150 °C ⁽²⁾	100 @ 125 °C or 50 @ 150 °C
T810T-6I	TO-220AB Ins	Logic level	8	600 @ 125 °C	60	125	10, 10, 10	5.4 @ 125 °C ⁽²⁾	100 @ 125 °C
T820T-6I	TO-220AB Ins	Snubberless™	8	600 @ 125 °C	60	125	20, 20, 20	3.4 @ 125 °C ⁽²⁾	750 @ 125 °C
T825T-6I	TO-220AB Ins	Standard 4 Quadrants	8	600 @ 125 °C	60	125	25, 25, 25, 40	4.5 @ 125 °C ⁽²⁾	500 @ 125 °C
T835T-6I	TO-220AB Ins	Snubberless™	8	600 @ 125 °C	60	125	35, 35, 35	8 @ 125 °C	2000 @ 125 °C
T835T-8FP	TO-220FPAB	Snubberless™	8	600 @ 150 °C or 800 @ 125 °C	60	150 or 125	35, 35, 35	8 @ 125 °C or 4 @ 150 °C	2000 @ 125 °C or 1000 @ 150 °C
T835T-8T	TO-220AB	Snubberless™ tab non insulated	8	600 @ 150 °C or 800 @ 125 °C	60	150 or 125	35, 35, 35	8 @ 125 °C 4 @ 150 °C	2000 @ 125 °C or 1000 @ 150 °C

T-SERIES HIGH-PERFORMANCE TRIACS

Part number	Package	Triac type	RMS on-state current $I_{T(RMS)}$	Repetitive peak off-state voltage V_{DRM}/V_{RRM}	Non-repetitive surge peak on-state current I_{TSM}	Junction temperature (T_J)	Triggering gate current I_{GT} (I, II, III, IV)	Rate of decrease of commutating on-state current (di/dt) _c (@ T_J max)	Rising rate of off voltage dV/dt (@ T_J max)
			max (A)	max (V)	max (A)	max (°C)	max (mA)	min (A/ms)	min (V/μs)
12 A									
T1210T-8T ⁽¹⁾	TO-220AB	Logic level tab non insulated	12	600 @ 150 °C or 800 @ 125 °C	90	150 or 125	10, 10, 10	7.6 @ 125 °C or 3.4 @ 150 °C ⁽²⁾	100 @ 125 °C or 50 @ 150 °C
T1210T-8FP ⁽¹⁾	TO-220FPAB	Logic level	12	600 @ 150 °C or 800 @ 125 °C	90	150 or 125	10, 10, 10	7.6 @ 125 °C or 3.4 @ 150 °C ⁽²⁾	100 @ 125 °C or 50 @ 150 °C
T1210T-6I	TO-220AB Ins	Logic level	12	600 @ 125 °C	90	125	10, 10, 10	7 @ 125 °C ⁽²⁾	100 @ 125 °C or 50 @ 150 °C
T1220T-6I	TO-220AB Ins	Snubberless™	12	600 @ 125 °C	90	125	20, 20, 20	6 @ 125 °C ⁽²⁾	1000 @ 125 °C
T1225T-6I	TO-220AB Ins	Standard 4 Quadrants	12	600 @ 125 °C	90	125	25, 25, 25, 40	7 @ 125 °C ⁽²⁾	100 @ 125 °C
T1235T-6I	TO-220AB Ins	Snubberless™	12	600 @ 125 °C	90	125	35, 35, 35	12 @ 125 °C	2000 @ 125 °C
T1235T-8FP	TO-220FPAB	Snubberless™	12	600 @ 150 °C or 800 @ 125 °C	90	150 or 125	35, 35, 35	12 @ 125 °C or 6 @ 150 °C	2000 @ 125 °C or 1000 @ 150 °C
T1235T-8T	TO-220AB	Snubberless™ tab non insulated	12	600 @ 150 °C or 800 @ 125 °C	90	150 or 125	35, 35, 35	12 @ 125 °C or 6 @ 150 °C	2000 @ 125 °C or 1000 @ 150 °C
16 A									
T1610T-8T ⁽¹⁾	TO-220AB	Logic level tab non insulated	16	600 @ 150 °C or 800 @ 125 °C	120	150 or 125	10, 10, 10	9 @ 125 °C or 4.5 @ 150 °C ⁽²⁾	100 @ 125 °C or 50 @ 150 °C
T1610T-8FP ⁽¹⁾	TO-220FPAB	Logic level	16	600 @ 150 °C or 800 @ 125 °C	120	150 or 125	10, 10, 10	9 @ 125 °C or 4.5 @ 150 °C ⁽²⁾	100 @ 125 °C or 50 @ 150 °C
T1610T-8I	TO-220AB Ins	Logic level	16	600 @ 150 °C or 800 @ 125 °C	120	150 or 125	10, 10, 10	9 @ 125 °C or 5.4 @ 150 °C ⁽²⁾	100 @ 125 °C or 50 @ 150 °C
T1620T-8I	TO-220AB Ins	Snubberless™	16	600 @ 150 °C or 800 @ 125 °C	120	150 or 125	20, 20, 20	6 @ 125 °C or 4.5 @ 150 °C	1000 @ 125 °C or 500 @ 150 °C
T1625T-8I	TO-220AB Ins	Standard 4 Quadrants	16	600 @ 150 °C or 800 @ 125 °C	120	150 or 125	25, 25, 25, 50	12 @ 125 °C or 6 @ 150 °C ⁽²⁾	500 @ 125 °C or 300 @ 150 °C ⁽²⁾
T1635T-8I	TO-220AB Ins	Snubberless™	16	600 @ 150 °C or 800 @ 125 °C	120	150 or 125	35, 35, 35	16 @ 125 °C or 12 @ 150 °C	2000 @ 125 °C or 1000 @ 150 °C
T1635T-8FP	TO-220FPAB	Snubberless™	16	600 @ 150 °C or 800 @ 125 °C	120	150 or 125	35, 35, 35	16 @ 125 °C or 8 @ 150 °C	2000 @ 125 °C or 1000 @ 150 °C

T-SERIES HIGH-PERFORMANCE TRIACS

Part number	Package	Triac type	RMS on-state current $I_{T(RMS)}$	Repetitive peak off-state voltage V_{DRM}/V_{RRM}	Non-repetitive surge peak on-state current I_{TSM}	Junction temperature (T_J)	Triggering gate current I_{GT} (I, II, III, IV)	Rate of decrease of commutating on-state current (dI/dt) _c (@ T_J max)	Rising rate of off voltage dV/dt (@ T_J max)
			max (A)	max (V)	max (A)	max (°C)	max (mA)	min (A/ms)	min (V/μs)
T1635T-8T	TO-220AB	Snubberless™ tab non insulated	16	600 @ 150 °C or 800 @ 125 °C	120	150 or 125	35, 35, 35	16 @ 125 °C or 8 @ 150 °C	2000 @ 125 °C or 1000 @ 150 °C

Notes:

(1) Under development, soon to come Q1 2014

(2) For non Snubberless™ (dI/dt)_c given at (dV/dt)_c = 0.1 V/μs, check datasheet for values of (dI/dt)_c at (dV/dt)_c = 10 V/μs.

H-SERIES HIGH-TEMPERATURE TRIACS

Part number	Package	Triac type	RMS on-state current $I_{T(RMS)}$	Repetitive peak off-state voltage V_{DRM}/V_{RRM}	Non-repetitive surge peak on-state current I_{TSM}	Junction temperature (T_J)	Triggering gate current I_{GT} (I, II, III)	Rate of decrease of commutating on-state current (dI/dt) _c (@ T_J max)	Rising rate of off voltage dV/dt (@ T_J max)
			max (A)	max (V)	max (A)	max (°C)	max (mA)	min (A/ms)	min (V/μs)
T410H	TO-220AB	Logic level	4	600	40	150	10, 10, 10	5.7 ⁽¹⁾	75
T610H	TO-220AB	Logic level	6	600	60	150	10, 10, 10	8.7 ⁽¹⁾	75
T810H	D ² PAK, TO-220AB	Logic level	8	600	80	150	10, 10, 10	11.4 ⁽¹⁾	75
T835H	D ² PAK, TO-220AB, TO-220AB Ins	Snubberless™	8	600	80	150	35, 35, 35	11	1000
T850H	D ² PAK, TO-220AB, TO-220AB Ins	Snubberless™	8	600	80	150	50, 50, 50	14	1500
T1010H	D ² PAK, TO-220AB	Logic level	10	600	100	150	10, 10, 10	14.4 ⁽¹⁾	75
T1035H	D ² PAK, TO-220AB, TO-220AB Ins	Snubberless™	10	600	100	150	35, 35, 35	13	1000
T1050H	D ² PAK, TO-220AB, TO-220AB Ins	Snubberless™	10	600	100	150	50, 50, 50	18	1500
T1235H	D ² PAK, TO-220AB, TO-220AB Ins	Snubberless™	12	600	120	150	35, 35, 35	16	1000
T1250H	D ² PAK, TO-220AB, TO-220AB Ins	Snubberless™	12	600	120	150	50, 50, 50	21	1500

H-SERIES HIGH-TEMPERATURE TRIACS

Part number	Package	Triac type	RMS on-state current $I_{T(RMS)}$	Repetitive peak off-state voltage V_{DRM}/V_{RRM}	Non-repetitive surge peak on-state current I_{TSM}	Junction temperature (T_J)	Triggering gate current I_{GT} (I, II, III)	Rate of decrease of commutating on-state current (di/dt) _c (@ T_J max)	Rising rate of off voltage dV/dt (@ T_J max)
			max (A)	max (V)	max (A)	max (°C)	max (mA)	min (A/ms)	min (V/μs)
T1635H	D ² PAK, TO-220AB, TO-220AB Ins	Snubberless™	16	600	160	150	35, 35, 35	21	1000
T1650H	D ² PAK, TO-220AB, TO-220AB Ins	Snubberless™	16	600	160	150	50, 50, 50	28	1500
T2035H	D ² PAK, TO-220AB, TO-220AB Ins	Snubberless™	20	600	200	150	35, 35, 35	27	1000
T2050H	TO-220AB, D2PAK	Snubberless™	20	600	200	150	50, 50, 50	36	1500
T3035H	TO-220AB, TO-220AB Ins	Snubberless™	30	600	270	150	35, 35, 35	33	1000
T3050H	TO-220AB, TO-220AB Ins	Snubberless™	30	600	270	150	50, 50, 50	44	1500

Note:

(1) Parameter at 0.1 V/μs

STANDARD SNUBBERLESS™ AND LOGIC LEVEL TRIACS

Part number	Package	Triac type	RMS on-state current $I_{T(RMS)}$	Repetitive peak off-state voltage V_{DRM}/V_{RRM}	Non-repetitive surge peak on-state current I_{TSM}	Junction temperature (T_J)	Triggering gate current I_{GT} (I, II, III)	Triggering gate current I_{GT} (I, II, III, IV)	Rate of decrease of commutating on-state current (di/dt) _c (@ T_J max)	Rising rate of off voltage dV/dt (@ T_J max)
			max (A)	max (V)	max (A)	max (°C)	max (mA)	max (mA)	min (A/ms)	min (V/μs)
0.8 A - 1 A Triacs										
Z00607	TO-92	Logic level	0.8	600	9	110		5, 5, 5, 7	0.35	10
Z0103M	SMBflat-3L, SOT-223, TO-92 GLASS	Logic level	1	600	8	125		3, 3, 3, 5	0.44	10
Z0107M	SMBflat-3L, SOT-223, TO-92 GLASS	Logic level	1	600	8	125		5, 5, 5, 7	0.44	20
Z0109M	SMBflat-3L, SOT-223, TO-92 GLASS	Logic level	1	600	8	125		10, 10, 10, 10	0.44	50
Z0110M	SOT-223, TO-92 GLASS	Standard	1	600	8	125		25, 25, 25, 25	0.44	100

STANDARD SNUBBERLESS™ AND LOGIC LEVEL TRIACS

Part number	Package	Triac type	RMS on-state current $I_{T(RMS)}$	Repetitive peak off-state voltage V_{DRM}/V_{RRM}	Non-repetitive surge peak on-state current I_{TSM}	Junction temperature (T_J)	Triggering gate current I_{GT} (I, II, III)	Triggering gate current I_{GT} (I, II, III, IV)	Rate of decrease of commutating on-state current (di/dt) _c (@ T_J max)	Rising rate of off voltage dV/dt (@ T_J max)
			max (A)	max (V)	max (A)	max (°C)	max (mA)	max (mA)	min (A/ms)	min (V/μs)
Z0103N	SOT-223, TO-92 GLASS	Logic level	1	800	8	125	-	3, 3, 3, 5	0.44	10
Z0107N	SOT-223, TO-92 GLASS	Logic level	1	800	8	125	-	5, 5, 5, 7	0.44	20
Z0109N	SOT-223, TO-92 GLASS	Logic level	1	800	8	125	-	10, 10, 10, 10	0.44	50
Z0110N	SOT-223, TO-92 GLASS	Standard	1	800	8	125	-	25, 25, 25, 25	0.44	100
4 A Triacs										
T405Q-600	DPAK, IPAK	Logic level	4	600	35	125	-	5, 5, 5, 10	1.8	10
Z0402MF	TO-202-3	Logic level	4	600	20	125	-	3, 3, 3, 3	0.5	10
Z0405MF	TO-202-3	Logic level	4	600	20	125	-	5, 5, 5, 5	1	20
Z0409MF	TO-202-3	Logic level	4	600	20	125	-	10, 10, 10, 10	2	100
Z0410MF	TO-202-3	Standard	4	600	20	125	-	25, 25, 25, 25	5	200
BTA04-600S	TO-220AB	Logic level	4	600	40	110	-	10, 10, 10, 10	1.8	10
Z0402SF	TO-202-3	Logic level	4	700	20	125	-	3, 3, 3, 3	1.8	10
Z0405SF	TO-202-3	Logic level	4	700	20	125	-	5, 5, 5, 5	1.8	20
Z0409SF	TO-202-3	Logic level	4	700	20	125	-	10, 10, 10, 10	1.8	100
Z0410SF	TO-202-3	Standard	4	700	20	125	-	25, 25, 25, 25	1.8	200
BTA04-700T	TO-220AB	Logic level	4	700	40	110	-	5, 5, 5, 5	1.8	-
BTA04-700S	TO-220AB	Logic level	4	700	40	110	-	10, 10, 10, 25	1.8	10
T405	DPAK, IPAK, ISOWATT220-AB, TO-220AB	Logic level	4	600 to 800	30	125	5, 5, 5	-	0.9	20
T410	DPAK, IPAK, ISOWATT220-AB, TO-220AB	Logic level	4	600 to 800	30	125	10, 10, 10	-	2	40

STANDARD SNUBBERLESS™ AND LOGIC LEVEL TRIACS

Part number	Package	Triac type	RMS on-state current $I_{T(RMS)}$	Repetitive peak off-state voltage V_{DRM}/V_{RRM}	Non-repetitive surge peak on-state current I_{TSM}	Junction temperature (T_J)	Triggering gate current I_{GT} (I, II, III)	Triggering gate current I_{GT} (I, II, III, IV)	Rate of decrease of commutating on-state current (di/dt) _c (@ T_J max)	Rising rate of off voltage dV/dt (@ T_J max)
			max (A)	max (V)	max (A)	max (°C)	max (mA)	max (mA)	min (A/ms)	min (V/μs)
T435	DPAK, IPAK, ISOWATT220-AB, TO-220AB	Snubberless™	4	600 to 800	30	125	35, 35, 35	-	2.5	400
Z0402NF	TO-202-3	Logic level	4	800	20	125	-	3, 3, 3, 3	0.5	10
Z0405NF	TO-202-3	Logic level	4	800	20	125	-	5, 5, 5, 5	1	20
Z0409NF	TO-202-3	Logic level	4	800	20	125	-	10, 10, 10, 10	2	100
Z0410NF	TO-202-3	Standard	4	800	20	125	-	25, 25, 25, 25	5	200
6 A Triacs										
BTB06-600B	TO-220AB	Standard	6	600	60	125	-	50, 50, 50, 100	2.7 ⁽²⁾	400
BTB06-600BW	TO-220AB	Snubberless™	6	600	60	125	50, 50, 50	-	5.3	1000
BTB06-600C	TO-220AB	Standard	6	600	60	125	-	25, 25, 25, 50	2.7 ⁽¹⁾	200
BTB06-600CW	TO-220AB	Snubberless™	6	600	60	125	35, 35, 35	-	3.5	400
BTB06-600SW	TO-220AB	Logic level	6	600	60	125	10, 10, 10	-	2.4 ⁽²⁾	40
BTB06-600TW	TO-220AB	Logic level	6	600	60	125	5, 5, 5	-	1.2 ⁽²⁾	20
T630-600W	ISOWATT220AB	Snubberless™	6	600	80	125	30, 30, 30	-	4.5	500
BTA06-600B	TO-220AB Ins	Standard	6	600	60	125	-	50, 50, 50, 100	2.7 ⁽²⁾	400
BTA06-600BW	TO-220AB Ins	Snubberless™	6	600	60	125	50, 50, 50	-	5.3	1000
BTA06-600C	TO-220AB Ins	Standard	6	600	60	125	-	25, 25, 25, 50	2.7 ⁽¹⁾	200
BTA06-600CW	TO-220AB Ins	Snubberless™	6	600	60	125	35, 35, 35	-	3.5	400
BTA06-600SW	TO-220AB Ins	Logic level	6	600	60	125	10, 10, 10	-	2.4 ⁽²⁾	40
BTA06-600TW	TO-220AB Ins	Logic level	6	600	60	125	5, 5, 5	-	1.2 ⁽²⁾	20
T630-800W	ISOWATT220AB	Snubberless™	6	800	80	125	30, 30, 30	-	4.5	500
BTB06-800B	TO-220AB	Standard	6	800	60	125	-	50, 50, 50, 100	2.7 ⁽²⁾	400

STANDARD SNUBBERLESS™ AND LOGIC LEVEL TRIACS

Part number	Package	Triac type	RMS on-state current $I_{T(RMS)}$	Repetitive peak off-state voltage V_{DRM}/V_{RRM}	Non-repetitive surge peak on-state current I_{TSM}	Junction temperature (T_J)	Triggering gate current I_{GT} (I, II, III)	Triggering gate current I_{GT} (I, II, III, IV)	Rate of decrease of commutating on-state current (dI/dt) _c (@ T_J max)	Rising rate of off voltage dV/dt (@ T_J max)
			max (A)	max (V)	max (A)	max (°C)	max (mA)	max (mA)	min (A/ms)	min (V/μs)
BTB06-800BW	TO-220AB	Snubberless™	6	800	60	125	50, 50, 50	-	5.3	1000
BTB06-800C	TO-220AB	Standard	6	800	60	125	-	25, 25, 25, 50	2.7 ⁽¹⁾	200
BTB06-800CW	TO-220AB	Snubberless™	6	800	60	125	35, 35, 35	-	3.5	400
BTB06-800SW	TO-220AB	Logic level	6	800	60	125	10, 10, 10	-	2.4 ⁽²⁾	40
BTB06-800TW	TO-220AB	Logic level	6	800	60	125	5, 5, 5	-	1.2 ⁽²⁾	20
BTA06-800B	TO-220AB Ins	Standard	6	800	60	125	-	50, 50, 50, 100	2.7 ⁽²⁾	400
BTA06-800BW	TO-220AB Ins	Snubberless™	6	800	60	125	50, 50, 50	-	5.3	1000
BTA06-800C	TO-220AB Ins	Standard	6	800	60	125	-	25, 25, 25, 50	2.7 ⁽¹⁾	200
BTA06-800CW	TO-220AB Ins	Snubberless™	6	800	60	125	35, 35, 35	-	3.5	400
BTA06-800SW	TO-220AB Ins	Logic level	6	800	60	125	10, 10, 10	-	2.4 ⁽²⁾	40
BTA06-800TW	TO-220AB Ins	Logic level	6	800	60	125	5, 5, 5	-	1.2 ⁽²⁾	20
8 A Triacs										
BTB08-600B	TO-220AB	Standard	8	600	80	125	-	50, 50, 50, 100	5.3 ⁽²⁾	400
BTB08-600BW	TO-220AB	Snubberless™	8	600	80	125	50, 50, 50	-	7	1000
BTB08-600C	TO-220AB	Standard	8	600	80	125	-	25, 25, 25, 50	5.3 ⁽¹⁾	200
BTB08-600CW	TO-220AB	Snubberless™	8	600	80	125	35, 35, 35	-	4.5	400
BTB08-600SW	TO-220AB	Logic level	8	600	80	125	10, 10, 10	-	3 ⁽²⁾	40
BTB08-600TW	TO-220AB	Logic level	8	600	80	125	5, 5, 5	-	1.5 ⁽²⁾	20
BTA08-600B	TO-220AB Ins	Standard	8	600	80	125	-	50, 50, 50, 100	5.3 ⁽²⁾	400
BTA08-600BW	TO-220AB Ins	Snubberless™	8	600	80	125	50, 50, 50	-	7	1000
BTA08-600C	TO-220AB Ins	Standard	8	600	80	125	-	25, 25, 25, 50	5.3 ⁽¹⁾	200
BTA08-600CW	TO-220AB Ins	Snubberless™	8	600	80	125	35, 35, 35	-	4.5	400

STANDARD SNUBBERLESS™ AND LOGIC LEVEL TRIACS

Part number	Package	Triac type	RMS on-state current $I_{T(RMS)}$	Repetitive peak off-state voltage V_{DRM}/V_{RRM}	Non-repetitive surge peak on-state current I_{TSM}	Junction temperature (T_J)	Triggering gate current I_{GT} (I, II, III)	Triggering gate current I_{GT} (I, II, III, IV)	Rate of decrease of commutating on-state current (di/dt) _c (@ T_J max)	Rising rate of off voltage dV/dt (@ T_J max)
			max (A)	max (V)	max (A)	max (°C)	max (mA)	max (mA)	min (A/ms)	min (V/μs)
BTA08-600SW	TO-220AB Ins	Logic level	8	600	80	125	10, 10, 10	-	3 ⁽²⁾	40
BTA08-600TW	TO-220AB Ins	Logic level	8	600	80	125	5, 5, 5	-	1.5 ⁽²⁾	20
BTB08-800B	TO-220AB	Standard	8	800	80	125	-	50, 50, 50, 100	5.3 ⁽²⁾	400
BTB08-800BW	TO-220AB	Snubberless™	8	800	80	125	50, 50, 50	-	7	1000
BTB08-800C	TO-220AB	Standard	8	800	80	125	-	25, 25, 25, 50	5.3 ⁽¹⁾	200
BTB08-800CW	TO-220AB	Snubberless™	8	800	80	125	35, 35, 35	-	4.5	400
BTB08-800SW	TO-220AB	Logic level	8	800	80	125	10, 10, 10	-	3 ⁽²⁾	40
BTB08-800TW	TO-220AB	Logic level	8	800	80	125	5, 5, 5	-	1.5 ⁽²⁾	20
BTA08-800B	TO-220AB Ins	Standard	8	800	80	125	-	50, 50, 50, 100	5.3 ⁽²⁾	400
BTA08-800BW	TO-220AB Ins	Logic level	8	800	80	125	50, 50, 50	-	7	1000
BTA08-800C	TO-220AB Ins	Standard	8	800	80	125	-	25, 25, 25, 50	5.3 ⁽¹⁾	200
BTA08-800CW	TO-220AB Ins	Snubberless™	8	800	80	125	35, 35, 35	-	4.5	400
BTA08-800SW	TO-220AB Ins	Logic level	8	800	80	125	10, 10, 10	-	3 ⁽²⁾	40
BTA08-800TW	TO-220AB Ins	Logic level	8	800	80	125	5, 5, 5	-	1.5 ⁽²⁾	20
T810	D ² PAK, DPAK	Logic level	8	800	80	125	10, 10, 10	-	2.8 ⁽²⁾	40
T835	D ² PAK, DPAK	Snubberless™	8	800	80	125	35, 35, 35	-	4.5	400
10 A Triacs										
BTB10-600BW	TO-220AB	Snubberless™	10	600	100	125	50, 50, 50	-	9	1000
BTB10-600B	TO-220AB	Standard	10	600	100	125	-	50, 50, 50, 100	4.4 ⁽²⁾	400
BTB10-600C	TO-220AB	Standard	10	600	100	125	-	25, 25, 25, 50	4.4 ⁽¹⁾	200
BTB10-600CW	TO-220AB	Snubberless™	10	600	100	125	35, 35, 35	-	5.5	1000
BTA10-600BW	TO-220AB Ins	Snubberless™	10	600	100	125	50, 50, 50	-	9	1000

STANDARD SNUBBERLESS™ AND LOGIC LEVEL TRIACS

Part number	Package	Triac type	RMS on-state current $I_{T(RMS)}$	Repetitive peak off-state voltage V_{DRM}/V_{RRM}	Non-repetitive surge peak on-state current I_{TSM}	Junction temperature (T_J)	Triggering gate current I_{GT} (I, II, III)	Triggering gate current I_{GT} (I, II, III, IV)	Rate of decrease of commutating on-state current (di/dt) _c (@ T_J max)	Rising rate of off voltage dV/dt (@ T_J max)
			max (A)	max (V)	max (A)	max (°C)	max (mA)	max (mA)	min (A/ms)	min (V/μs)
BTA10-600B	TO-220AB Ins	Standard	10	600	100	125	-	50, 50, 50, 100	4.4 ⁽²⁾	400
BTA10-600C	TO-220AB Ins	Standard	10	600	100	125	-	25, 25, 25, 50	4.4 ⁽¹⁾	200
BTA10-600CW	TO-220AB Ins	Snubberless™	10	600	100	125	35, 35, 35	-	5.5	1000
BTB10-800BW	TO-220AB	Snubberless™	10	800	100	125	50, 50, 50	-	9	1000
BTB10-800B	TO-220AB	Standard	10	800	100	125	-	50, 50, 50, 100	4.4 ⁽²⁾	400
BTB10-800C	TO-220AB	Standard	10	800	100	125	-	25, 25, 25, 50	4.4 ⁽¹⁾	200
BTB10-800CW	TO-220AB	Snubberless™	10	800	100	125	35, 35, 35	-	5.5	1000
BTA10-800BW	TO-220AB Ins	Snubberless™	10	800	100	125	50, 50, 50	-	9	1000
BTA10-800B	TO-220AB Ins	Standard	10	800	100	125	-	50, 50, 50, 100	4.4 ⁽²⁾	400
BTA10-800C	TO-220AB Ins	Standard	10	800	100	125	-	25, 25, 25, 50	4.4 ⁽¹⁾	200
BTA10-800CW	TO-220AB Ins	Snubberless™	10	800	100	125	35, 35, 35	-	5.5	1000
12 A Triacs										
T1235-600G	D²PAK	Snubberless™	12	600	120	125	35, 35, 35	-	6.5	500
T1250-600G	D²PAK	Snubberless™	12	600	120	125	50, 50, 50	-	12	1000
BTB12-800B	TO-220AB	Standard	12	600	120	125	-	50, 50, 50, 100	5.3 ⁽²⁾	400
BTB12-800BW	TO-220AB	Snubberless™	12	600	120	125	50, 50, 50	-	12	1000
BTB12-800C	TO-220AB	Standard	12	600	120	125	-	25, 25, 25, 50	5.3 ⁽¹⁾	200
BTB12-800CW	TO-220AB	Snubberless™	12	600	120	125	35, 35, 35	-	6.5	500
BTB12-800SW	TO-220AB	Logic level	12	600	120	125	10, 10, 10	-	2.9 ⁽²⁾	40
BTB12-800TW	TO-220AB	Logic level	12	600	120	125	5, 5, 5	-	1 ⁽²⁾	20
BTA12-600BW	TO-220AB Ins	Snubberless™	12	600	120	125	50, 50, 50	-	12	1000
BTA12-600C	TO-220AB Ins	Standard	12	600	120	125	-	25, 25, 25, 50	5.3 ⁽¹⁾	200

STANDARD SNUBBERLESS™ AND LOGIC LEVEL TRIACS

Part number	Package	Triac type	RMS on-state current $I_{T(RMS)}$	Repetitive peak off-state voltage V_{DRM}/V_{RRM}	Non-repetitive surge peak on-state current I_{TSM}	Junction temperature (T_J)	Triggering gate current I_{GT} (I, II, III)	Triggering gate current I_{GT} (I, II, III, IV)	Rate of decrease of commutating on-state current (di/dt) _c (@ T_J max)	Rising rate of off voltage dV/dt (@ T_J max)
			max (A)	max (V)	max (A)	max (°C)	max (mA)	max (mA)	min (A/ms)	min (V/μs)
BTA12-600CW	TO-220AB Ins	Snubberless™	12	600	120	125	35, 35, 35	-	6.5	500
BTA12-600SW	TO-220AB Ins	Logic level	12	600	120	125	10, 10, 10	-	2.9 ⁽²⁾	40
BTA12-600TW	TO-220AB Ins	Logic level	12	600	120	125	5, 5, 5	-	1 ⁽²⁾	20
BTB12-600B	TO-220AB	Standard	12	800	120	125	-	50, 50, 50, 100	5.3 ⁽²⁾	400
BTB12-600BW	TO-220AB	Snubberless™	12	800	120	125	50, 50, 50	-	12	1000
BTB12-600C	TO-220AB	Standard	12	800	120	125	-	25, 25, 25, 50	5.3 ⁽¹⁾	200
BTB12-600CW	TO-220AB	Snubberless™	12	800	120	125	35, 35, 35	-	6.5	500
BTB12-600SW	TO-220AB	Logic level	12	800	120	125	10, 10, 10	-	2.9 ⁽²⁾	40
BTB12-600TW	TO-220AB	Logic level	12	800	120	125	5, 5, 5	-	1 ⁽²⁾	20
BTA12-800B	TO-220AB Ins	Standard	12	800	120	125	-	50, 50, 50, 100	5.3 ⁽²⁾	400
BTA12-800B	TO-220AB Ins	Standard	12	800	120	125	-	50, 50, 50, 100	5.3 ⁽²⁾	400
BTA12-800BW	TO-220AB Ins	Snubberless™	12	800	120	125	50, 50, 50	-	12	1000
BTA12-800C	TO-220AB Ins	Standard	12	800	120	125	-	25, 25, 25, 50	5.3 ⁽¹⁾	200
BTA12-800CW	TO-220AB Ins	Snubberless™	12	800	120	125	35, 35, 35	-	6.5	500
BTA12-800SW	TO-220AB Ins	Logic level	12	800	120	125	10, 10, 10	-	2.9 ⁽²⁾	40
BTA12-800TW	TO-220AB Ins	Logic level	12	800	120	125	5, 5, 5	-	1 ⁽²⁾	20
T1210-800G	D ² PAK	Logic level	12	800	120	125	10, 10, 10	-	2.9 ⁽²⁾	40
T1235-800G	D ² PAK	Snubberless™	12	800	120	125	35, 35, 35	-	6.5	500
16 A Triacs										
T1650-600G	D ² PAK	Snubberless™	16	600	160	125	50, 50, 50	-	14	1000
T1620-600W	ISOWATT220AB	Snubberless™	16	600	195	125	20, 20, 20	-	20	10
BTB16-600B	TO-220AB	Standard	16	600	160	125	-	50, 50, 50, 100	7 ⁽²⁾	400

STANDARD SNUBBERLESS™ AND LOGIC LEVEL TRIACS

Part number	Package	Triac type	RMS on-state current $I_{T(RMS)}$	Repetitive peak off-state voltage V_{DRM}/V_{RRM}	Non-repetitive surge peak on-state current I_{TSM}	Junction temperature (T_J)	Triggering gate current I_{GT} (I, II, III)	Triggering gate current I_{GT} (I, II, III, IV)	Rate of decrease of commutating on-state current (di/dt) _c (@ T_J max)	Rising rate of off voltage dV/dt (@ T_J max)
			max (A)	max (V)	max (A)	max (°C)	max (mA)	max (mA)	min (A/ms)	min (V/μs)
BTB16-600BW	TO-220AB	Snubberless™	16	600	160	125	50, 50, 50	-	14	1000
BTB16-600C	TO-220AB	Standard	16	600	160	125	-	25, 25, 25, 50	7 ⁽¹⁾	200
BTB16-600CW	TO-220AB	Snubberless™	16	600	160	125	35, 35, 35	-	8.5	500
BTB16-600SW	TO-220AB	Logic level	16	600	160	125	10, 10, 10	-	3 ⁽²⁾	40
BTA16-600B	TO-220AB Ins	Standard	16	600	160	125	-	50, 50, 50, 100	7 ⁽²⁾	400
BTA16-600BW	TO-220AB Ins	Snubberless™	16	600	160	125	50, 50, 50	-	14	1000
BTA16-600C	TO-220AB Ins	Standard	16	600	160	125	-	25, 25, 25, 50	7 ⁽¹⁾	200
BTA16-600CW	TO-220AB Ins	Snubberless™	16	600	160	125	35, 35, 35	-	8.5	500
BTA16-600SW	TO-220AB Ins	Logic level	16	600	160	125	10, 10, 10	-	3 ⁽²⁾	40
BTA16-600TW	TO-220AB Ins	Logic level	16	600	160	125	5, 5, 5	-	-	-
BTB16-800B	TO-220AB	Standard	16	800	160	125	-	50, 50, 50, 100	7 ⁽²⁾	400
BTB16-800BW	TO-220AB	Snubberless™	16	800	160	125	50, 50, 50	-	14	1000
BTB16-800CW	TO-220AB	Snubberless™	16	800	160	125	35, 35, 35	-	8.5	500
BTB16-800SW	TO-220AB	Logic level	16	800	160	125	10, 10, 10	-	3 ⁽²⁾	40
BTA16-800B	TO-220AB Ins	Standard	16	800	160	125	-	50, 50, 50, 100	7 ⁽²⁾	400
BTA16-800BW	TO-220AB Ins	Snubberless™	16	800	160	125	50, 50, 50	-	14	1000
BTA16-800CW	TO-220AB Ins	Snubberless™	16	800	160	125	35, 35, 35	-	8.5	500
BTA16-800SW	TO-220AB Ins	Logic level	16	800	160	125	10, 10, 10	-	3 ⁽²⁾	40
BTA16-800TW	TO-220AB Ins	Logic level	16	800	160	125	5, 5, 5	-	-	-
T1610	D ² PAK	Logic level	16	800	160	125	10, 10, 10	-	3 ⁽²⁾	40
T1620W	ISOWATT220AB	Snubberless™	16	800	200	125	20, 20, 20	-	8.5	300
T1630W	ISOWATT220AB	Snubberless™	16	800	200	125	30, 30, 30	-	11	500

STANDARD SNUBBERLESS™ AND LOGIC LEVEL TRIACS

Part number	Package	Triac type	RMS on-state current $I_{T(RMS)}$	Repetitive peak off-state voltage V_{DRM}/V_{RRM}	Non-repetitive surge peak on-state current I_{TSM}	Junction temperature (T_J)	Triggering gate current I_{GT} (I, II, III)	Triggering gate current I_{GT} (I, II, III, IV)	Rate of decrease of commutating on-state current (dI/dt) _c (@ T_J max)	Rising rate of off voltage dV/dt (@ T_J max)
			max (A)	max (V)	max (A)	max (°C)	max (mA)	max (mA)	min (A/ms)	min (V/μs)
T1635	D²PAK	Snubberless™	16	800	160	125	35, 35, 35	-	8.5	500
20 A Triacs										
BTA20-600CWRG	TO-220AB Ins	Snubberless™	20	600	200	125	35, 35, 35	-	20 ⁽²⁾	250
BTA20-700BWRG	TO-220AB Ins	Snubberless™	20	700	200	125	50, 50, 50	-	20	500
BTA20-700CWRG	TO-220AB Ins	Snubberless™	20	700	200	125	35, 35, 35	-	20 ⁽²⁾	250
25 A Triacs										
BTA24-600BWRG	TO-220AB Ins	Snubberless™	25	600	250	125	50, 50, 50	-	22	1000
BTA24-600CWRG	TO-220AB Ins	Snubberless™	25	600	250	125	35, 35, 35	-	13	500
BTB24-600BRG	TO-220AB	Standard	25	600	250	125	-	50, 50, 50, 100	13 ⁽²⁾	500
BTB24-600BWRG	TO-220AB	Snubberless™	25	600	250	125	50, 50, 50	-	22	1000
BTB24-600CWRG	TO-220AB	Snubberless™	25	600	250	125	35, 35, 35	-	13	500
BTA25-600BRG	RD-91	Standard	25	600	250	125	-	50, 50, 50, 100	13 ⁽²⁾	500
BTA25-600BWRG	RD-91	Snubberless™	25	600	250	125	50, 50, 50	-	22	1000
BTA25-600CWRG	RD-91	Snubberless™	25	600	250	125	35, 35, 35	-	13	500
BTA26-600BRG	TOP-3 Ins	Standard	25	600	250	125	-	50, 50, 50, 100	13 ⁽²⁾	500
BTA26-600BWRG	TOP-3 Ins	Snubberless™	25	600	250	125	50, 50, 50	-	22	1000
BTA26-600CWRG	TOP-3 Ins	Snubberless™	25	600	250	125	35, 35, 35	-	13	500
BTB26-600BRG	TOP-3	Standard	25	600	250	125	-	50, 50, 50, 100	13 ⁽²⁾	500
T2535-800G	D²PAK	Snubberless™	25	800	250	125	35, 35, 35	-	13	500
BTA24-800BWRG	TO-220AB Ins	Snubberless™	25	800	250	125	50, 50, 50	-	22	1000
BTA24-800CWRG	TO-220AB Ins	Snubberless™	25	800	250	125	35, 35, 35	-	13	500
BTB24-800BRG	TO-220AB	Standard	25	800	250	125	-	50, 50, 50, 100	13 ⁽²⁾	500

STANDARD SNUBBERLESS™ AND LOGIC LEVEL TRIACS

Part number	Package	Triac type	RMS on-state current $I_{T(RMS)}$	Repetitive peak off-state voltage V_{DRM}/V_{RRM}	Non-repetitive surge peak on-state current I_{TSM}	Junction temperature (T_J)	Triggering gate current I_{GT} (I, II, III)	Triggering gate current I_{GT} (I, II, III, IV)	Rate of decrease of commutating on-state current (di/dt) _c (@ T_J max)	Rising rate of off voltage dV/dt (@ T_J max)
			max (A)	max (V)	max (A)	max (°C)	max (mA)	max (mA)	min (A/ms)	min (V/μs)
BTB24-800BWRG	TO-220AB	Snubberless™	25	800	250	125	50, 50, 50	-	22	1000
BTB24-800CWRG	TO-220AB	Snubberless™	25	800	250	125	35, 35, 35	-	13	500
BTA25-800BRG	RD-91	Standard	25	800	250	125	-	50, 50, 50, 100	13 ⁽²⁾	500
BTA25-800BWRG	RD-91	Snubberless™	25	800	250	125	50, 50, 50	-	22	1000
BTA25-800CWRG	RD-91	Snubberless™	25	800	250	125	35, 35, 35	-	13	500
BTA26-800BRG	TOP-3 Ins	Standard	25	800	250	125	-	50, 50, 50, 100	13 ⁽²⁾	500
BTA26-800BWRG	TOP-3 Ins	Snubberless™	25	800	250	125	50, 50, 50	-	22	1000
BTA26-800CWRG	TOP-3 Ins	Snubberless™	25	800	250	125	35, 35, 35	-	13	500
BTB26-800BRG	TOP-3	Standard	25	800	250	125	-	50, 50, 50, 100	13 ⁽²⁾	500
40 A Triacs										
BTA40	RD-91	Standard	40	800	400	125	-	50, 50, 50, 100	20 ⁽²⁾	500
BTB41	TOP-3	Standard	40	800	400	125	-	50, 50, 50, 100	20 ⁽²⁾	500
BTA41	TOP-3 Ins	Standard	40	800	400	125	-	50, 50, 50, 100	20 ⁽²⁾	500

Notes:

(1) Parameters at 5 V/μs

(2) Parameters at 10 V/μs

MEDIUM-POWER TRIACS

Part number	Package	Triac type	RMS on-state current $I_{T(RMS)}$	Repetitive peak off-state voltage V_{DRM}/V_{RRM}	Non-repetitive surge peak on-state current I_{TSM}	Junction temperature (T_J)	Triggering gate current I_{GT} (I, II, III)	Rate of decrease of commutating on-state current (dI/dt) _c (@ T_J max)	Rising rate of off voltage dV/dt (@ T_J max)
			max (A)	max (V)	max (A)	max (°C)	max (mA)	min (A/ms)	min (V/μs)
TXDVxx12	TO-220AB Ins	High-voltage	12	1200	120	125	100, 100, 100	30 ⁽¹⁾	200
TPDVxx25	TOP-3 Ins	High-voltage	25	1200	230	125	150, 150, 150	88 ⁽¹⁾	2000
TPDVxx40	TOP-3 Ins	High-voltage	40	1200	350	125	200, 200, 200	142 ⁽¹⁾	500

Note:

(1) Parameter with snubber at 10 V/μs

AUTOMATIC VOLTAGE SWITCHES

Part number	Package	SMPS power	RMS on-state current $I_{T(RMS)}$	Repetitive peak off-state voltage V_{DRM}/V_{RRM}	Non-repetitive surge peak on-state current I_{TSM}	Junction temperature (T_J)	Triggering quadrants	Rate of rise on-state current (dI/dt) _c (@ T_J max)	Rising rate of off voltage dV/dt (@ T_J max)
			max (A)	max (V)	max (A)	max (°C)		max (A/ms)	min (V/μs)
AVS08CB	TO-220AB	< 200 W	5	500	65	125	I, II, III	100	-
AVS10CB	TO-220AB	< 300 W	8	600	80	125	I, II, III	100	50
AVS12CB	TO-220AB	< 500 W	12	600	100	125	I, II, III	100	50

Thyristors (SCRs)

HIGH-TEMPERATURE THYRISTORS

Part number	Package	Thyristor, SCR type	RMS on-state current $I_{T(RMS)}$	Repetitive peak off-state voltage V_{DRM}/V_{RRM}	Non-repetitive surge peak on-state current I_{TSM}	Junction temperature (T _J)	Triggering gate current I_{GT}	Rising ratio of off voltage dV/dt (@ T _J max)
			max (A)	max (V)	max (A)	max (°C)	max (mA)	min (V/μs)
TN1205H	D ² PAK, TO-220AB	High-temperature	12	600	120	150	5	100

STANDARD AND LOGIC LEVEL THYRISTORS

Part number	Package	Thyristor, SCR type	RMS on-state current I _{T(RMS)}	Repetitive peak off-state voltage V _{DRM} /V _{RRM}	Non-repetitive surge peak on-state current I _{TSM}	Junction temperature (T _J)	Triggering gate current I _{GT}	Rising ratio of off voltage dV/dt (@ T _J max)
			max (A)	max (V)	max (A)	max (°C)	max (mA)	min (V/μs)
Standard thyristors								
TYN606	TO-220AB	Standard	6	600	70	125	15	200
TN805	DPAK	Standard	8	600	70	125	5	50
TN815	DPAK, IPAK	Standard	8	600 to 800	70	125	15	150
TXN612	TO-220AB	Standard	8	600	120	125	15	200
TYN608	TO-220AB	Standard	8	600	95	125	15	150
TYN610	TO-220AB	Standard	10	600	100	125	15	200
TYN810	TO-220AB	Standard	10	800	100	125	15	200
TN1205T-600	DPAK	Standard	12	600	115	125	5	100
TN1215	D2PAK; DPAK; IPAK	Standard	12	800	140	125	15	200
TYN1012	TO-220AB	Standard	12	1000	140	125	15; 5	40
TYN612	TO-220AB	Standard	12	600	140	125	15; 5	40
TYN612M	TO-220AB; TO-220FPAB	Standard	12	600	120	125	5	50
TYN812	TO-220AB	Standard	12	800	140	125	15; 5	40

STANDARD AND LOGIC LEVEL THYRISTORS

Part number	Package	Thyristor, SCR type	RMS on-state current $I_{T(RMS)}$	Repetitive peak off-state voltage V_{ORM}/V_{RRM}	Non-repetitive surge peak on-state current I_{TSM}	Junction temperature (T_J)	Triggering gate current I_{GT}	Rising ratio of off voltage dV/dt (@ $T_{J,max}$)
			max (A)	max (V)	max (A)	max (°C)	max (mA)	min (V/ μ s)
TN1515-600B	DDPAK	Standard	15	600	150	125	15	200
TN1625	D2PAK	Standard	16	600 to 1000	190	125	25	500
TYN616	TO-220AB	Standard	16	600	190	125	25	500
TYN816	TO-220AB	Standard	16	800	190	125	25	500
TN2540	D2PAK	Standard	25	600 to 800	300	125	40	1000
TXN625	TO-220AB Ins	Standard	25	600	300	125	40	1000
TYN625	TO-220AB	Standard	25	600	300	125	40	1000
TYN825	TO-220AB	Standard	25	800	300	125	40	1000
TYN640	TO-220AB	Standard	40	600	460	125	35	1000
TYN840	TO-220AB	Standard	40	800	460	125	35	1000
BTW67	RD-91	Standard	50	600 to 1000	580	125	80	1000
Logic level thyristors								
P010XX	SOT-223; SOT-23; TO-92	Logic level	0.8	100 to 600	8	125	0.001; 0.2	75 to 200
P011XX	SOT-223; TO-92	Logic level	0.8	400 to 600	7	125	0.005; 0.025	75
X006	TO-92	Logic level	0.8	600	9	125	0.2	25
X00619	SOT-223; TO-92	Logic level	0.8	600	9	125	0.2	40
XL0840	TO-92 -T TO-92	Logic level	0.8	400	7	125	0.2	75
X02	SMBflat-3L; SOT-223; TO-92 GLASS	Logic level	1.25	600 to 800	22.5	125	0.05; 0.2	10
TS420	DDPAK; IPAK; TO-220AB	Logic level	4	600	30	125	0.2	5
X04	TO-202-3	Logic level	4	600 to 800	30	125	0.05; 0.2	10
TS820	DDPAK; IPAK; TO-220AB; TO-220FPAB	Logic level	8	600 to 700	70	125	0.2	5
TS1220	DDPAK; IPAK; TO-220AB	Logic level	12	600	110	125	0.2	5

STANDARD AND LOGIC LEVEL THYRISTORS

Part number	Package	Thyristor, SCR type	RMS on-state current $I_{T(RMS)}$	Repetitive peak off-state voltage V_{DRM}/V_{RRM}	Non-repetitive surge peak on-state current I_{TSM}	Junction temperature (T_J)	Triggering gate current I_{GT}	Rising ratio of off voltage dV/dt (@ T_J max)
			max (A)	max (V)	max (A)	max (°C)	max (mA)	min (V/μs)
Logic level high voltage thyristors								
TS110	SMBflat-3L; TO-92	1250 V peak voltage Logic level for circuit breakers	1.25	700	25	125	0.1	15

MEDIUM POWER THYRISTORS

Part number	Package	Thyristor, SCR type	RMS on-state current $I_{T(RMS)}$	Repetitive peak off-state voltage V_{DRM}/V_{RRM}	Non-repetitive surge peak on-state current I_{TSM}	Junction temperature (T_J)	Triggering gate current I_{GT}	Rising ratio of off voltage dV/dt (@ T_{Jmax})
			max (A)	max (V)	max (A)	max (°C)	max (mA)	min (V/ μ s)
TYN1212	TO-220AB	1200 V medium power	12	1200	120	125	15	200
TYN1225	TO-220AB	1200 V medium power	25	1200	300	125	40	1000
BTW68	TOP-3 ISOL	1200 V medium power	30	1200	400	125	50	500
BTW69	TOP-3 ISOL	1200 V medium power	50	1200	580	125	80	1000
BTW69-1200N	TOP-3	1200 V medium power	50	1200	700	125	50	1000

Thyristor application-specific discretes (ASD®)

APPLICATION-SPECIFIC IGNITORS

Part number	Package	General description	RMS on-state current $I_{T(RMS)}$	Repetitive surge peak on-state current (I_{TRM})	Peak repeat off voltage (V_{DRM})	Peak repeat reverse voltage (V_{RRM})	Breakover voltage (V_{BO})	Breakover voltage (V_{BO})	Junction temperature (T_J)	Critical rate of rise of on-state current (di/dt)
			max (A)	typ (A)	max (V)	max (V)	min (V)	max (V)	max (°C)	max (A/μs)
FLC01	DPAK, IPAK	Fire lighter circuit	-	190	200	-	206	233	125	120
FLC10	DPAK, IPAK	Fire lighter circuit	-	240	20	-	200	250	125	200
FLC21	TO-92	Low-power fire lighter circuit	-	90	135	135	140	160	125	50
LIC01	DPAK, IPAK	Light ignition circuit	1.2	50	180	180	195	215	125	80
P0130	TO-92	0.8 A SCRs	0.8	7	100	100	-	-	125	50
TN22	IPAK, TO-220AB	Starlight	2	20	400	400	1200	1500	110	50

POWER CONTROLS/MONITORING DRIVERS

Part number	Package	General description	Number of AC switch drivers	Filter	5 V reg	Switch status sense	Supply voltage (V_{CC})	Supply voltage (V_{CC})	Junction temperature (T_J)
							min (V)	max (V)	max (°C)
STCC08	SO-8	AC switch failure mode detector	1	Yes	No	Yes	3.3	6	125

TRIGGER DIODES

Part number	Package	Breakover voltage (V_{BO})	Breakover voltage (V_{BO})	Junction temperature (T_J)
		min (V)	max (V)	max (°C)
DB3	DO-35	28	36	125
DB3TG	DO-35	30	34	125
DB4	DO-35	35	45	125
SMDB3	SOT-23	28	36	125
TMMDB3	MINIMELF	28	36	125
TMMDB3TG	MINIMELF	30	34	125



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