

Maximum Ratings @TA = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitance load, derate current by 20%.

Characteristic		Value	Unit
Non-Repetitive Peak Impulse Current @10/1000us	I _{pp}	30	Α
Non-Repetitive Peak On-State Current @8.3ms (one-half cycle)	I _{TSM}	15	Α
Typical Positive Temperature Coefficient for Breakdown Voltage	$\Delta VBR/\Delta T_J$	0.1	%/°C

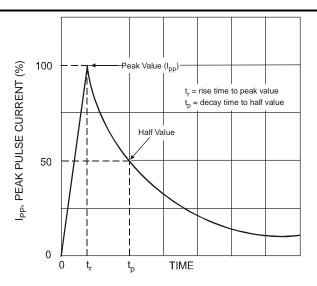
Thermal Characteristics

Characteristic	Symbol	Value	Unit
Thermal Resistance, Junction to Lead	$R_{\theta JL}$	30	°C/W
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	120	°C/W
Junction Temperature Range	TJ	-40 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

Maximum Rated Surge Waveform

Waveform	Standard	Ipp (A)
2/10 us	GR-1089-CORE	200
8/20 us	IEC 61000-4-5	150
10/160 us	FCC Part 68	100
10/700 us (Note 4)	ITU-T, K.20/K.21	60
10/560 us	FCC Part 68	50
10/1000 us	GR-1089-CORE	30

Notes: 4. Applied 2kV, 10/700 us waveform



Electrical Characteristics @TA = 25°C unless otherwise specified

Part Number	Maximum Rated Repetitive Off-State Voltage	Maximum Off-State Leakage Current @ V _{DRM}	Maximum Breakover Voltage	Maximum On-State Voltage @ I _T = 1A	Breakover Current IBO Holding Current		Typical Off-State Capacitance	Marking Code		
	V _{DRM} (V)	I _{DRM} (uA)	V _{BO} (V)	V _T (V)	Min (mA)	Max (mA)	Min (mA)	Max (mA)	C _O (pF)	
TB0640L	58	5	77	3.5	50	800	150	800	100	T064L
TB0720L	65	5	88	3.5	50	800	150	800	100	T072L
TB0900L	75	5	98	3.5	50	800	150	800	100	T090L
TB1100L	90	5	130	3.5	50	800	150	800	60	T110L
TB1300L	120	5	160	3.5	50	800	150	800	60	T130L
TB1500L	140	5	180	3.5	50	800	150	800	60	T150L
TB1800L	160	5	220	3.5	50	800	150	800	60	T180L
TB2300L	190	5	265	3.5	50	800	150	800	40	T230L
TB2600L	220	5	300	3.5	50	800	150	800	40	T260L
TB3100L	275	5	350	3.5	50	800	150	800	40	T310L
TB3500L	320	5	400	3.5	50	800	150	800	40	T350L

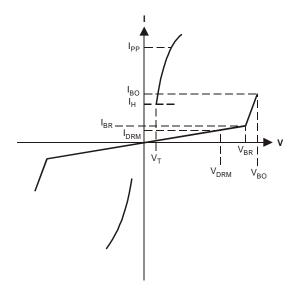


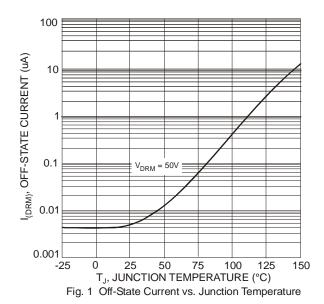
Electrical Characteristics @T_A = 25°C unless otherwise specified

Symbol	Parameter
V_{DRM}	Stand-off Voltage
I _{DRM}	Leakage current at stand-off voltage
V_{BR}	Breakdown voltage
I _{BR}	Breakdown current
V_{BO}	Breakover voltage
I _{BO}	Breakover current
I _H	Holding current (Note 5)
V _T	On state voltage
Ірр	Peak pulse current
Co	Off-state capacitance (Note 6)

Notes:

- $5.\ l_H > (V_L/R_L)$ If this criterion is not obeyed, the TSPD triggers but does not return correctly to high-resistance state. The surge recovery time does not exceed 30ms. 6. Off-state capacitance measured at f = 1.0 MHz, $1.0 V_{RMS}$ signal, $V_R = 2 V_{DC}$ bias.





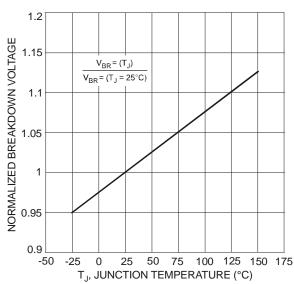


Fig. 2 Relative Variation of Breakdown Voltage vs. Junction Temperature



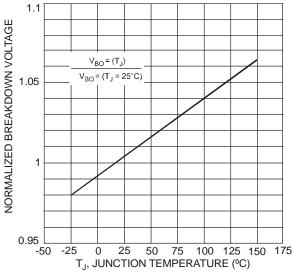


Fig. 3 Relative Variation of Breakover Voltage vs. Junction Temperature

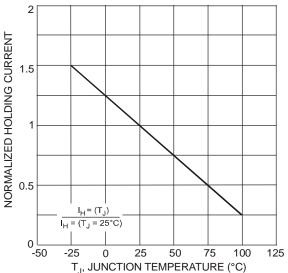


Fig. 5 Relative Variation of Holding Current vs. Junction Temperature

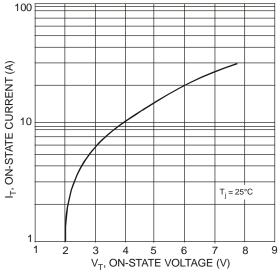


Fig. 4 On-State Current vs. On-State Voltage

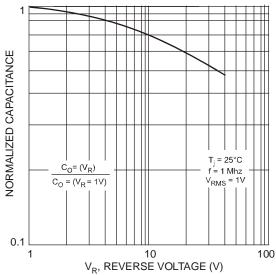
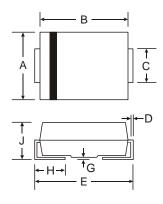


Fig. 6 Relative Variation of Junction Capacitance vs. Reverse Voltage Bias

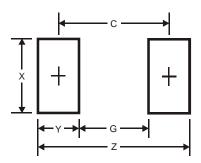
Package Outline Dimensions



SMB				
Dim	Min	Max		
Α	3.30	3.94		
В	4.06	4.57		
С	1.96	2.21		
D	0.15	0.31		
Е	5.00	5.59		
G	0.05	0.20		
Н	0.76	1.52		
J	2.00	2.50		
All Dimensions in mm				



Suggested Pad Layout



SMB Dimensions	Value (in mm)
Z	6.8
G	1.8
Х	2.3
Υ	2.5
С	4.3

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