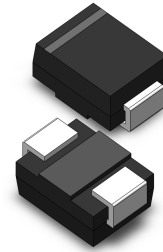


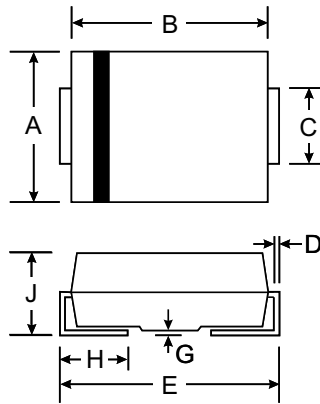
Features

- 30A Peak Pulse Current @ 10/1000 s
- 150A Peak Pulse Current @ 8/20 s
- 58 - 320V Stand-Off Voltages
- Oxide-Glass Passivated Junction
- Bi-Directional Protection In a Single Device
- High Off-State impedance and Low On-State Voltage



Mechanical Data

- Case: SMB/DO-214AA, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.093 grams (approx.)



SMB(DO-214AA)		
Dim	Min	Max
A	3.30	3.94
B	4.06	4.70
C	1.91	2.21
D	0.15	0.31
E	5.00	5.59
G	0.10	0.20
H	0.76	1.52
J	2.00	2.62
All Dimensions in mm		

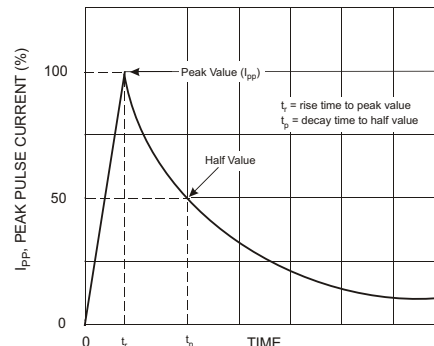
Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Impulse Current @ 10/1000us	I_{pp}	30	A
Non-Repetitive Peak On-State Current @ 8.3ms (one-half cycle)	I_{TSM}	15	A
Junction Temperature Range	T_j	-40 to +150	C
Storage Temperature Range	T_{STG}	-55 to +150	C
Thermal Resistance, Junction to Lead	R_{JL}	30	$^\circ\text{C/W}$
Thermal Resistance, Junction to Ambient	R_{JA}	120	$^\circ\text{C/W}$
Typical Positive Temperature Coefficient for Breakdown Voltage	VBR / T_j	0.1	$\% / ^\circ\text{C}$

Maximum Rated Surge Waveform

Waveform	Standard	I_{pp} (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	ITU-T, K20/K21	60
10/560 us	FCC Part 68	50
10/1000 us	GR-1089-CORE	30

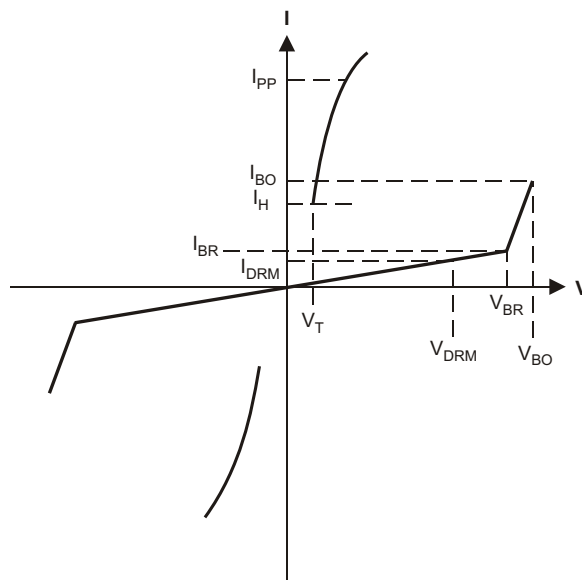


Electrical Characteristics @ $T_A = 25\text{ C}$ unless otherwise specified

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

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: 1
V_T	On state voltage
I_{PP}	Peak pulse current
C_O	Off-state capacitance NOTE: 2

- Notes:
- $I_H > (V_L/R_L)$ 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.
 - Off-state capacitance measured at $f = 1.0\text{ MHz}$, $1.0V_{RMS}$ signal, $V_R = 2V_{DC}$ bias.



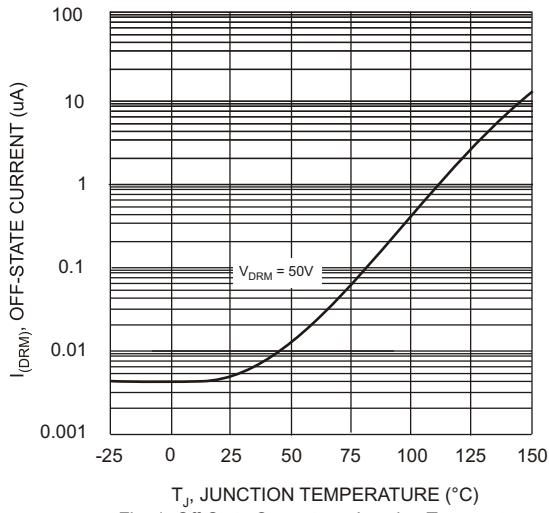


Fig. 1 Off-State Current vs. Junction Temperature

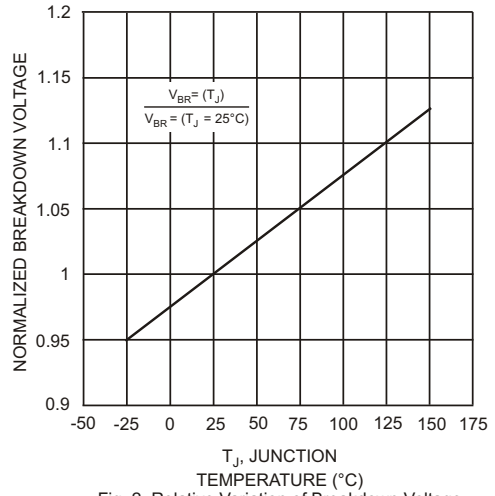


Fig. 2 Relative Variation of Breakdown Voltage vs. Junction Temperature

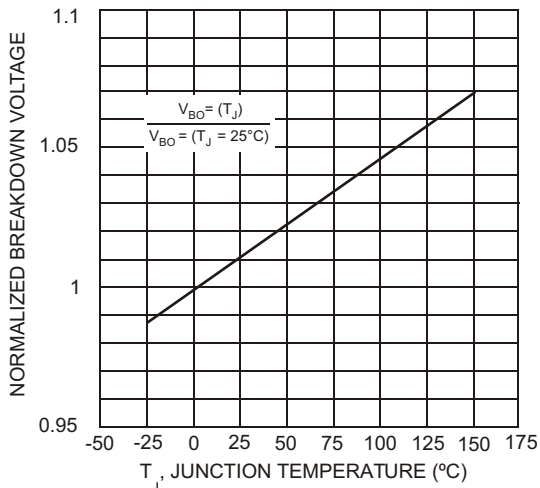


Fig. 3 Relative Variation of Breakover Voltage vs. Junction Temperature

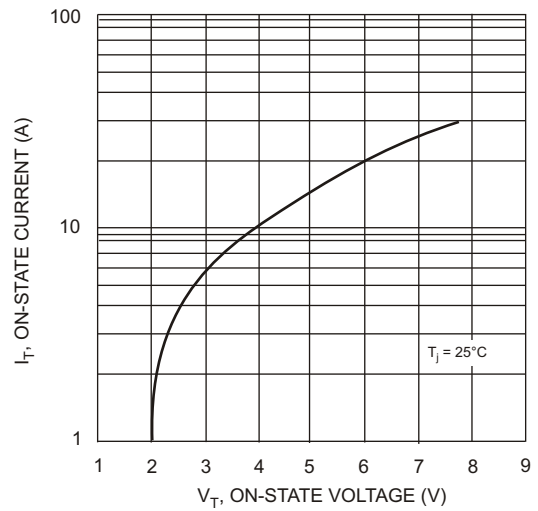


Fig. 4 On-State Current vs. On-State Voltage

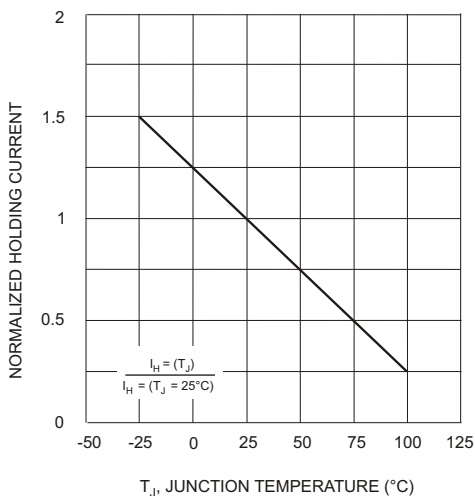


Fig. 5 Relative Variation of Holding Current vs. Junction Temperature

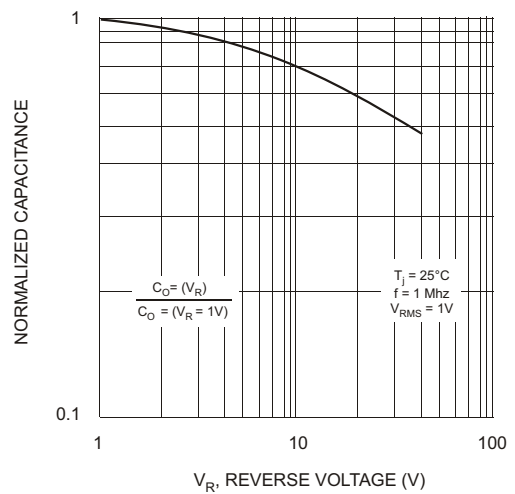


Fig. 6 Relative Variation of Junction Capacitance vs. Reverse Voltage Bias