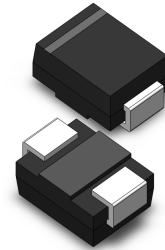


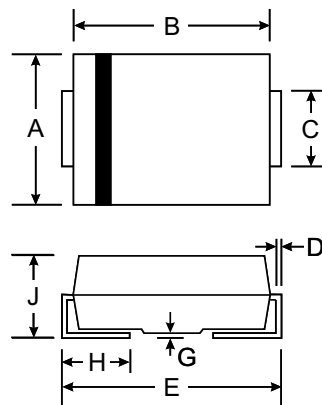
### Features

- 100A Peak Pulse Current @ 10/1000 s
- 400A 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		

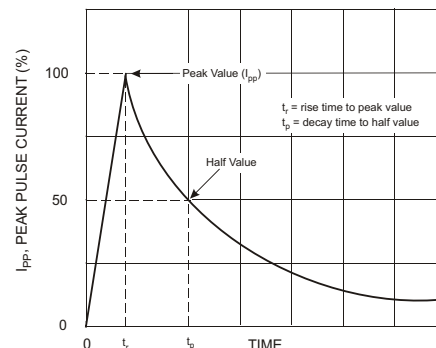
### Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

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	$I_{pp}$	100	A
Non-Repetitive Peak On-State Current @ 8.3ms (one-half cycle)	$I_{TSM}$	50	A
Junction Temperature Range	$T_j$	-40 to +150	C
Storage Temperature Range	$T_{STG}$	-55 to +150	C
Thermal Resistance, Junction to Lead	$R_{JL}$	20	$^\circ\text{C}/\text{W}$
Thermal Resistance, Junction to Ambient	$R_{JA}$	100	$^\circ\text{C}/\text{W}$
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	500
8/20 us	IEC 61000-4-5	400
10/160 us	FCC Part 68	250
10/700 us	ITU-T, K20/K21	200
10/560 us	FCC Part 68	160
10/1000 us	GR-1089-CORE	100

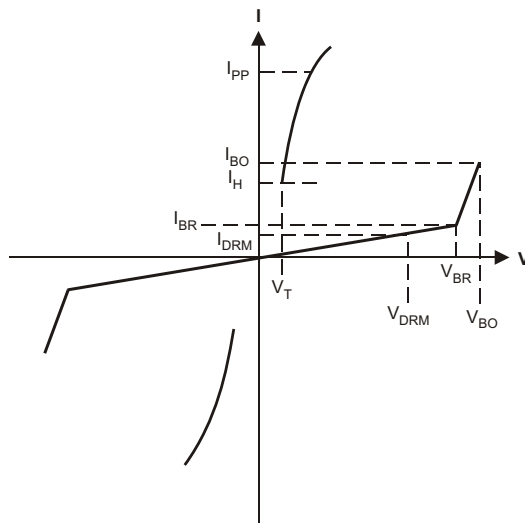


**Electrical Characteristics** @  $T_A = 25\text{ C}$  unless otherwise specified

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)	$I_{DRM}$ ( $\mu\text{A}$ )	$V_{BO}$ (V)	$V_T$ (V)	Min (mA)	Max (mA)	Min (mA)	Max (mA)	$C_O$ (pF)
TB0640H	T064H	58	5	77	3.5	50	800	150	800	200
TB0720H	T072H	65	5	88	3.5	50	800	150	800	200
TB0900H	T090H	75	5	98	3.5	50	800	150	800	200
TB1100H	T110H	90	5	130	3.5	50	800	150	800	120
TB1300H	T130H	120	5	160	3.5	50	800	150	800	120
TB1500H	T150H	140	5	180	3.5	50	800	150	800	120
TB1800H	T180H	160	5	220	3.5	50	800	150	800	120
TB2300H	T230H	190	5	265	3.5	50	800	150	800	80
TB2600H	T260H	220	5	300	3.5	50	800	150	800	80
TB3100H	T310H	275	5	350	3.5	50	800	150	800	80
TB3500H	T350H	320	5	400	3.5	50	800	150	800	80

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.



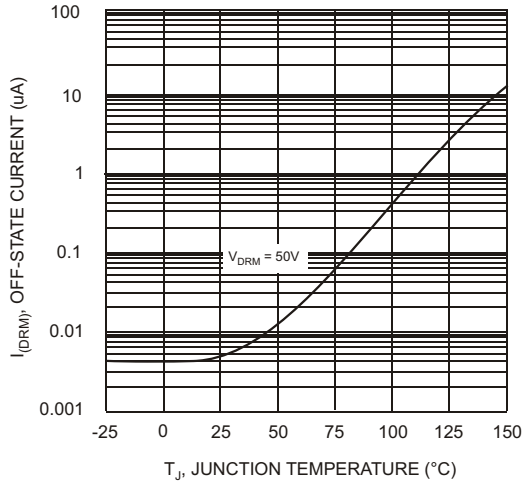


Fig. 1 Off-State Current vs. Junction Temperature

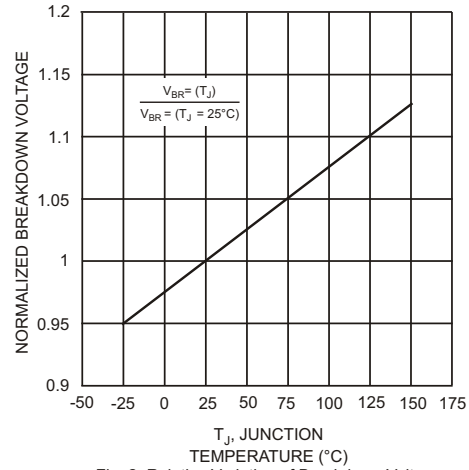


Fig. 2 Relative Variation of Breakdown Voltage vs. Junction Temperature

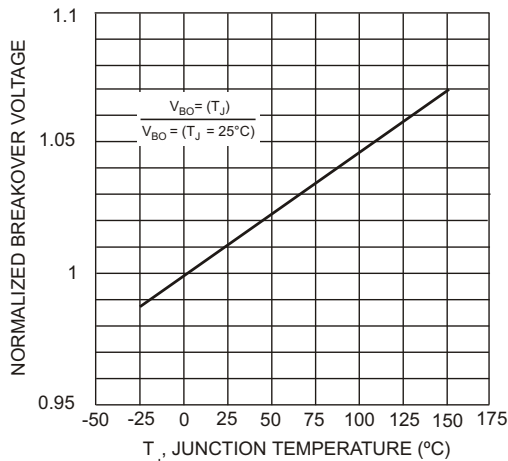


Fig. 3 Relative Variation of Breakover Voltage vs. Junction Temperature

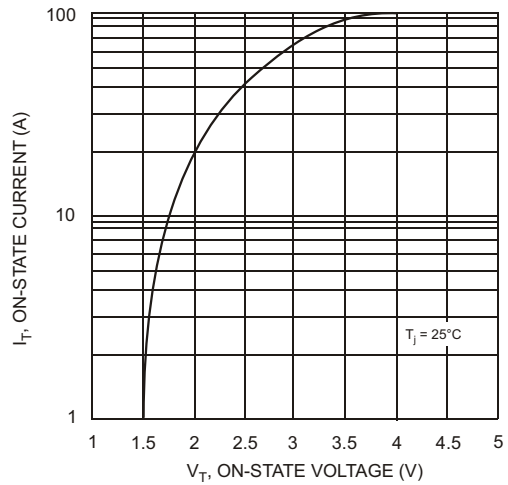


Fig. 4 On-State Current vs. On-State Voltage

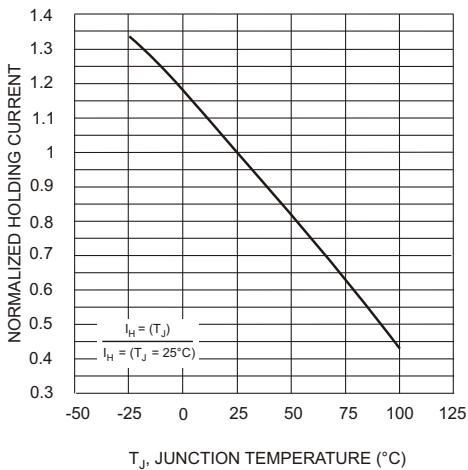


Fig. 5 Relative Variation of Holding Current vs. Junction Temperature

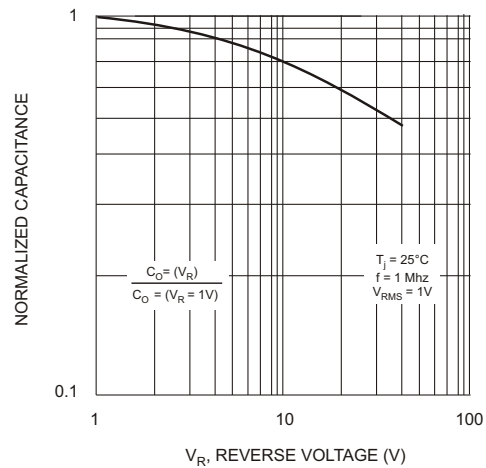


Fig. 6 Relative Variation of Normalized Capacitance vs. Reverse Voltage Bias