

Surface Mount Schottky Barrier Rectifiers

(Pb) Lead(Pb)-Free

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Features:

- *For Surface Mount Application
- *Metal-Semiconductor Junction With Guardring
- *Epitaxial Construction
- *Very Low Forward Voltage Drop
- *High Current Capability
- *Plastic Material Has UL Flammability Classification 94V-0
- *For Use In Low , And Polarity Protection Applications

Mechanical Data:

- *Case : Molded Plastic
- *Polarity :Indicated by cathode band
- *Weight : 0.007 Ounce ,0.21 grams

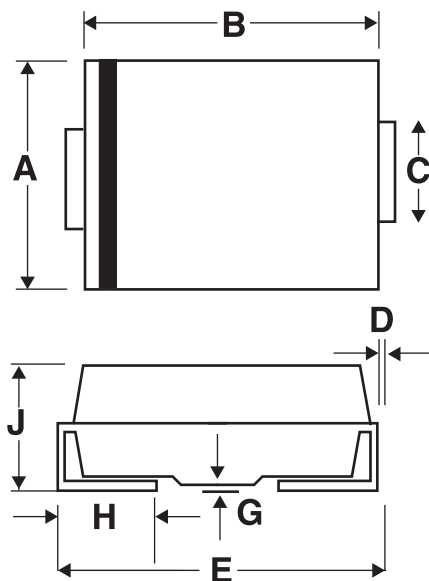
REVERSE VOLTAGE
20 TO 60 VOLTS
FORWARD CURRENT
5.0 AMPERE



SMC(DO-214AB)

SMC Outline Dimension

Unit:mm



SMC		
Dim	Min	Max
A	5.59	6.22
B	6.60	7.11
C	2.75	3.18
D	0.15	0.31
E	7.75	8.13
G	0.10	0.20
H	0.76	1.52
J	2.00	2.62

Maximum Ratings and Electrical Characteristics

Rating 25°C Ambient Temperature Unless Otherwise Specified.
Single Phase Half Wave, 60Hz , Resistive or Inductive Load.
For Capacitive Load, Derate Current by 20%.

Characteristics	Symbol	B520	B530	B540	B550	B560	Unit
Maximum Recurrent Peak Reverse Voltage	VRRM	20	30	40	50	60	V
Maximum RMS Voltage	VRMS	14	21	28	35	42	V
Maximum DC Blocking Voltage	VDC	20	30	40	50	60	V
Maximum Average Forward Rectified Current @TC=80°C	I _{F(AV)}	5.0					A
Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	IFSM	175					A
Maximum Instantaneous At 5.0A DC	VF	0.55		0.7		V	
Maximum DC Reverse Current @T _j =25°C At Rated DC Blocking Voltage @T _j =100°C	IR	0.5 20					mA
Typical Junction Capacitance (Note 1)	C _J	300					PF
Typical Thermal Resistance (Note 2)	R _{θJL}	10					°C/W
Operating Temperature Range	T _J	-55 to+125					°C
Storage Temperature Range	TSTG	-55 to+150					°C

NOTES:1.Measured at 1.0MHz applied reverse voltage of 4.0V DC.
2.Thermal Resistance Junction to case.

FIG.1 FORDWARD CURRENT DERATING CURVE

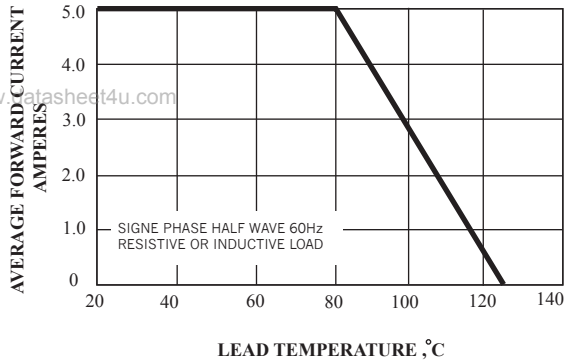


FIG.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

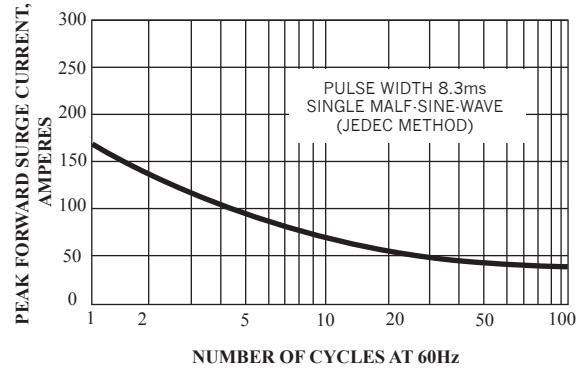


FIG.3 TYPICAL FORWARD CHARACTERISTICS

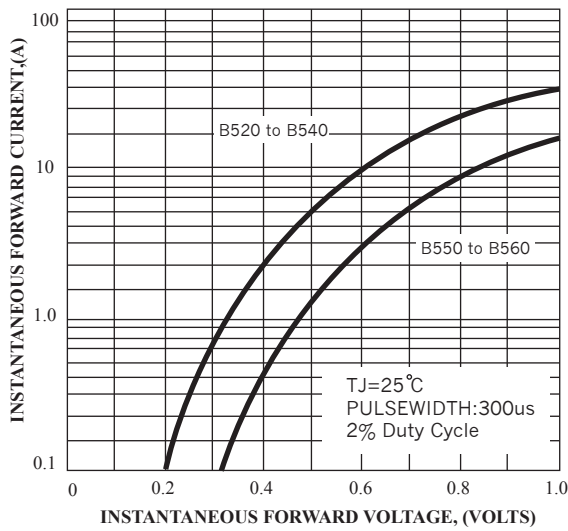


FIG.4 TYPICAL JUNCTION CAPACITANCE

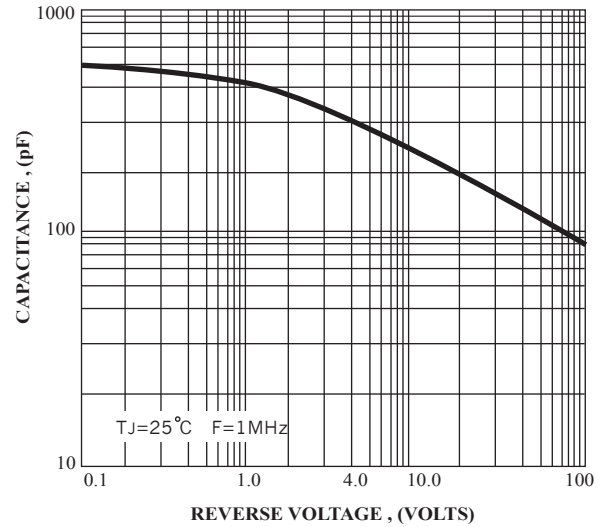


FIG.5 TYPICAL REVERSE CHARACTERISTICS

