

Low VF Surface Mount Schottky Barrier Rectifiers

 Lead(Pb)-Free

Features:

- *Low Surface Mounted Applications
- *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 Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications

Mechanical Data

- *Case : Molded Plastic
- *Polarity :Indicated By Cathode Band
- *Weight : 0.002 ounces, 0.064 grams

REVERSE VOLTAGE
40Volts

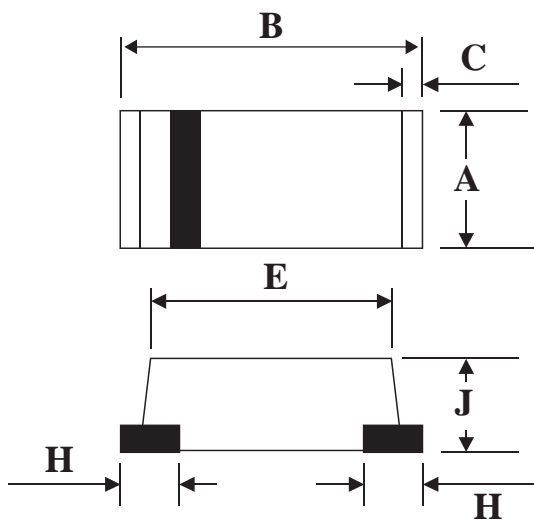
FORWARD CURRENT
1.0 Ampere



SMA-1

SMA-1 Outline Dimension

unit:mm



Dimensions in inches

SMA-1		
Dim	Min	Max
A	2.40	2.80
B	4.40	4.80
C	0.30	0.30
E	3.80	4.20
H	1.00	1.00
J	1.50	1.70

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	B140L	Unit
Maximum Recurrent Peak Reverse Voltage	VRRM	40	V
Maximum RMS Voltage	VRMS	28	V
Maximum DC Blocking Voltage	VDC	40	V
Maximum Average Forward Rectified Current @TC=105°C	I _{F(AV)}	1.0	A
Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	25	A
Maximum Instantaneous Forward Voltage @T _j =25°C @IF=1.0A @T _j =100°C	V _F	0.38 0.35	V
Maximum DC Reverse Current @T _j =25°C At Rated DC Blocking Voltage @T _j =100°C	I _R	1.0 25	mA
Typical Junction Capacitance (Note 1)	C _J	100	pF
Typical Thermal Resistance (Note 2)	RA _{JC}	35	°C/W
Operating Temperature Range	T _J	-55 to+125	°C
Storage Temperature Range	T _{STG}	-55 to+150	°C

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

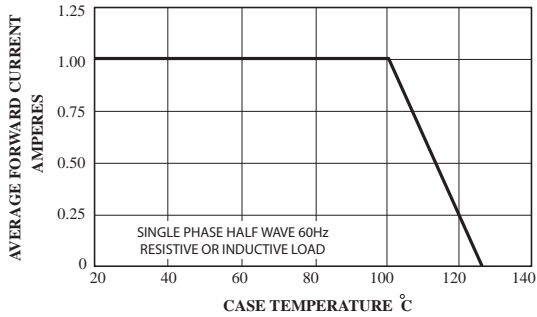


FIG1.-FORWARD CURRENT DERATION CURVE

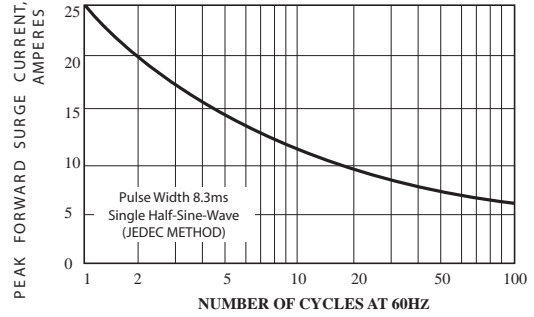


FIG2.-MAXIMUM NON-REPETITIVE SURGE CURRENT

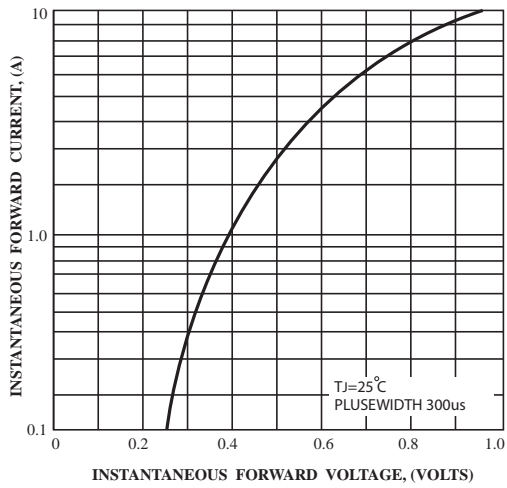


FIG3.-TYPICAL FORWARD CHARACTERISTICS

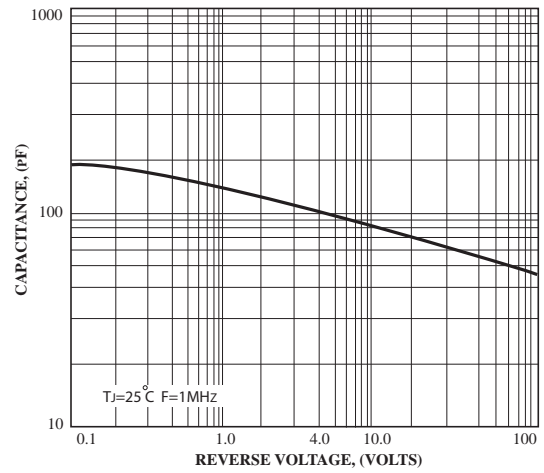


FIG4.-TYPICAL JUNCTION CAPACITANCE

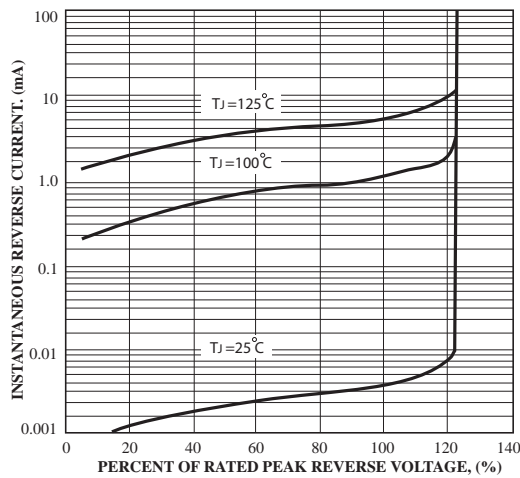


FIG5.-TYPICAL REVERSE CHARACTERISTICS