

Schottky Barrier Rectifiers

Using the Schottky Barrier principle with a Refractory metal capable of high temperature operation metal. proprietary barrier technology allows for reliable operation up to 150°C junction temperature. Typical application are in switching Mode Power Supplies such as adaptors, DC/DC converters free-wheeling and polarity protection diodes.

Features

- * Low Forward Voltage.
- * Low Switching noise.
- * High Current Capacity
- * Guarantee Reverse Avalanche.
- * Guard-Ring for Stress Protection.
- * Low Power Loss & High efficiency.
- * 150°C Operating Junction Temperature
- * Low Stored Charge Majority Carrier Conduction.
- * Plastic Material used Carries Underwriters Laboratory Flammability Classification 94V-O
- * Moisture Sensitivity Level: MSL-1
- * *Pb free*
- * *In compliance with EU RoHs directives*



MAXIMUM RATINGS

Characteristic	Symbol	SR506LB	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	60	V
RMS Reverse Voltage	$V_{R(RMS)}$	42	V
Average Rectifier Forward Current	I_O	5	A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfware, single phase, 60Hz)	I_{FSM}	200	A
Operating and Storage Junction Temperature Range	T_J , T_{STG}	-65 to +150	°C

ELECTRICAL CHARACTERISTICS

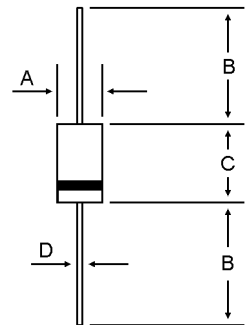
Characteristic	Symbol	Min.	Typ.	Max.	Unit
Maximum Instantaneous Forward Voltage ($I_F = 5$ Amp. $T_C = 25^\circ\text{C}$) ($I_F = 5$ Amp. $T_C = 125^\circ\text{C}$)	V_F	---	0.42 0.37	0.48 ---	V
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_C = 25^\circ\text{C}$) (Rated DC Voltage, $T_C = 125^\circ\text{C}$)	I_R	---	0.10 20	0.15 ---	mA
Maximum Thermal Resistance Junction to case	$R_{\theta JC}$		55		°C/W
Typical Junction Capacitance (Reverse Voltage of 4 volts & f=1 MHz)	C_P		250		pF

SCHOTTKY BARRIER RECTIFIERS

**5 AMPERES
60 VOLTS**



DO-201AD



DIM	MILLIMETERS	
	MIN	MAX
A	5.00	5.60
B	25.40	---
C	8.50	9.50
D	1.18	1.22

CASE---
Transfer molded plastic

POLARITY---
Cathode indicated polarity band

FIG-1 FORWARD CURRENT DERATING CURVE

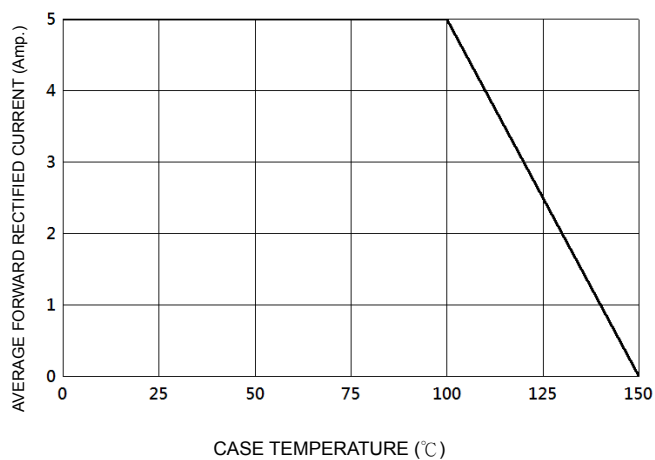


FIG-2 TYPICAL FORWARD CHARACTERISTICS

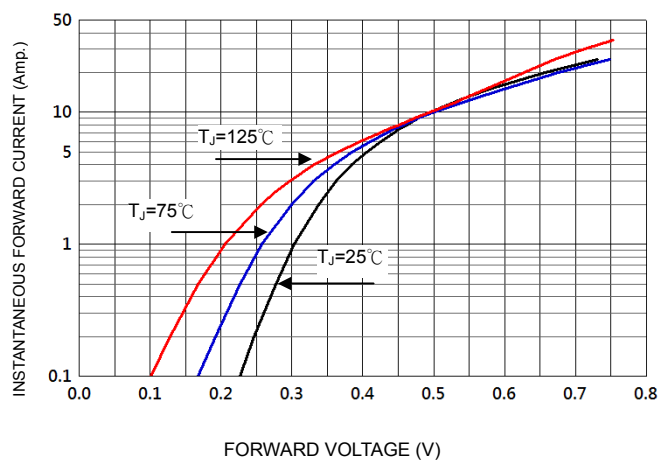


FIG-3 TYPICAL REVERSE CHARACTERISTICS

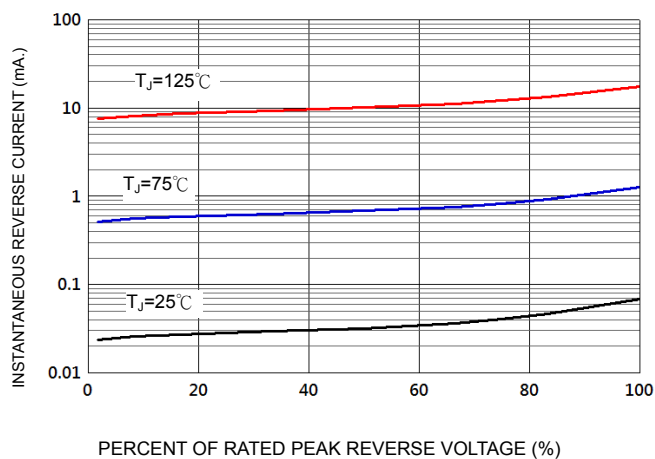


FIG-4 TYPICAL JUNCTION CAPACITANCE

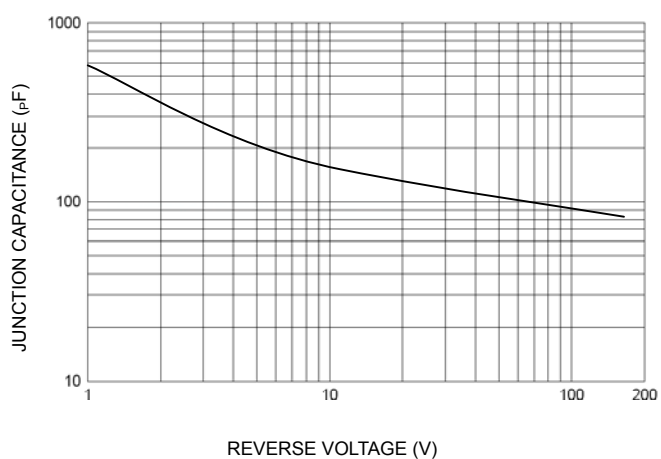
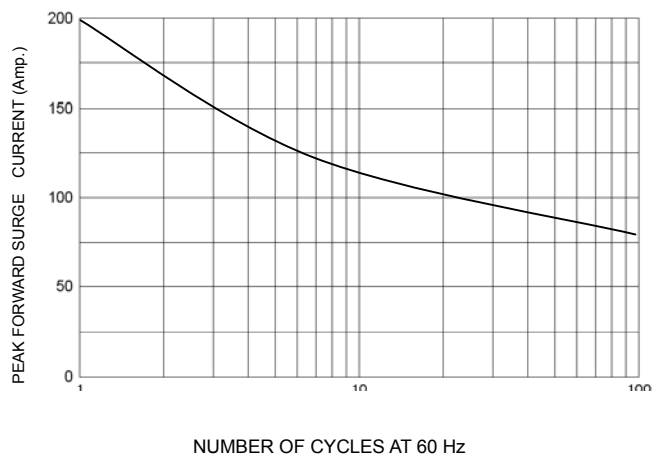


FIG-5 PEAK FORWARD SURGE CURRENT



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