Schottky Barrier Rectifiers

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

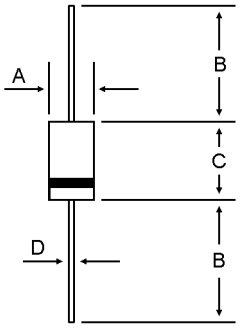
SCHOTTKY BARRIER RECTIFIERS

5.0 AMPERES
100 VOLTS

DO-201AD

Feature

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



DIM	MILLIMETERS	
	MIN	MAX
A	4.80	5.60
B	24.50	---
C	7.20	9.50
D	1.10	1.30

CASE---
Transfer molded plastic

POLARITY---
Cathode indicated polarity band

MAXIMUM RATINGS

Characteristic	Symbol	SRT5100M	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	100	V
RMS Reverse Voltage	$VR_{(RMS)}$	70	V
Average Rectifier Forward Current	$I_{F(AV)}$	5.0	A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions half-wave, single phase,60Hz)	I_{FSM}	75	A
Operating and Storage Junction Temperature Range	T_J , T_{STG}	-65 to +150	℃

THERMAL RESISTANCES

Typical Thermal Resistance junction to case	$R_{\theta j\text{-}c}$	7.1	℃/w

ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Maximum Instantaneous Forward Voltage (I_F =5.0 Amp T_C = 25℃) (I_F =5.0 Amp T_C = 125℃)	V_F	--- ---	0.63 0.58	0.70 ---	V
Maximum Instantaneous Reverse Current (Rated DC Voltage, T_C = 25℃) (Rated DC Voltage, T_C = 125℃)	I_R	--- ---	0.026 15.5	0.05 ---	mA

FIG-1 FORWARD CURRENT DERATING CURVE

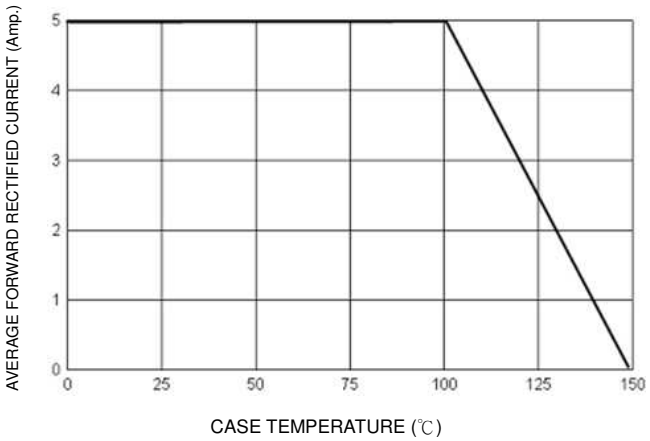


FIG-2 TYPICAL FORWARD CHARACTERISTICS

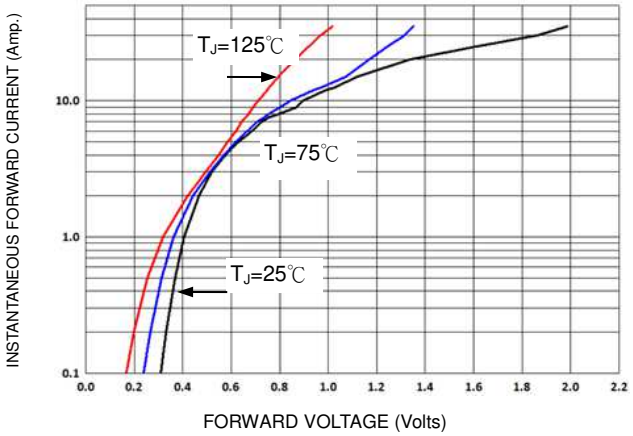


FIG-3 TYPICAL REVERSE CHARACTERISTICS

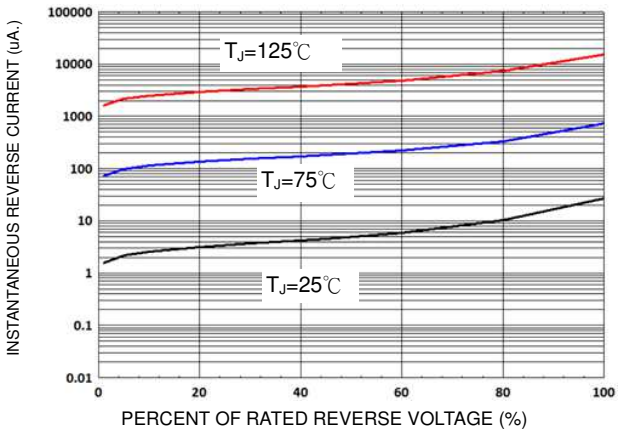


FIG-4 TYPICAL JUNCTION CAPACITANCE

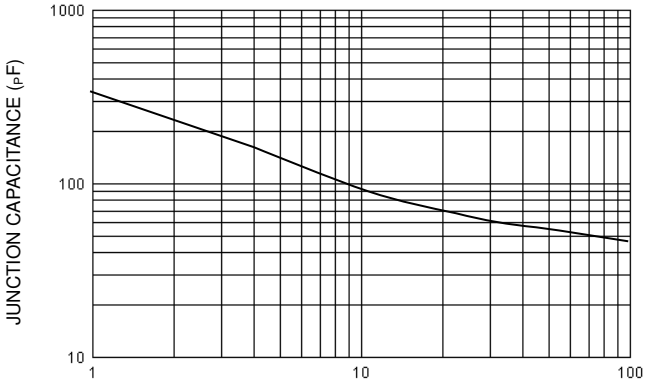
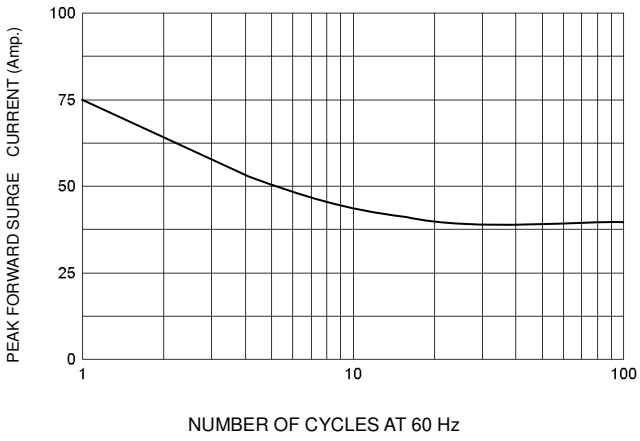


FIG-5 PEAK FORWARD SURGE CURRENT



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