sapcon®

SR5200

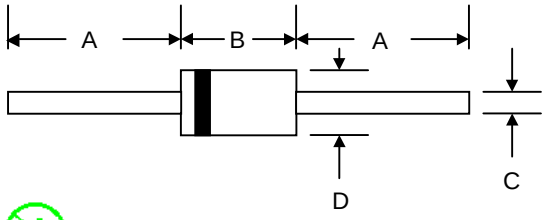
Schottky Barrier Rectifiers

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℃ 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℃ Operating Junction Temperature
- ✳Low Stored Charge Majority Carrier Conduction.
- ✳Plastic Material used Carries Underwriters Laboratory Flammability Classification 94V-O
- ✳Moisture Sensitivity Level: MSL-1

✳ *In compliance with EU RoHs 2002/95/EC directives*



DO-201AD		
Dim	**Min**	**Max**
A	25.4	—
B	7.20	9.50
C	1.20	1.30
D	4.80	5.30
All Dimensions in mm		

MAXIMUM RATINGS

Characteristic	Symbol	SR5200	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	200	V
RMS Reverse Voltage	$V_{R(RMS)}$	140	V
Average Rectifier Forward Current	I_O	5.0	A
Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfware, single phase, 60Hz)	I_{FSM}	150	A
Operating and Storage Junction Temperature Range	T_J , T_{STG}	-65 to +150	℃

ELECTRIAL CHARACTERISTICS

Characteristic	Symbol	SR5200	Unit
Maximum Instantaneous Forward Voltage (I_F =5.0 Amp.)	V_F	0.95	V
Maximum Instantaneous Reverse Current (Rated DC Voltage, T_C = 25℃) (Rated DC Voltage, T_C = 125℃)	I_R	0.01 10	mA
Maximum Thermal Resistance Junction to case	$R_{\theta JC}$	55	℃/W
Typical Junction Capacitance (Reverse Voltage of 4 volts & f=1 MHz)	C_P	320	pF

FIG-1 FORWARD CURRENT DERATING CURVE

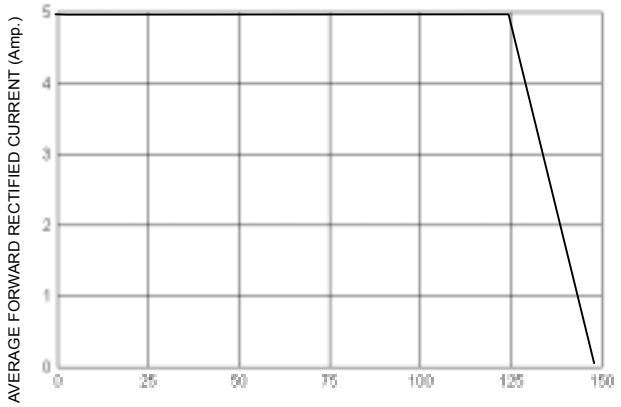


FIG-2 TYPICAL FORWARD CHARACTERISITICS

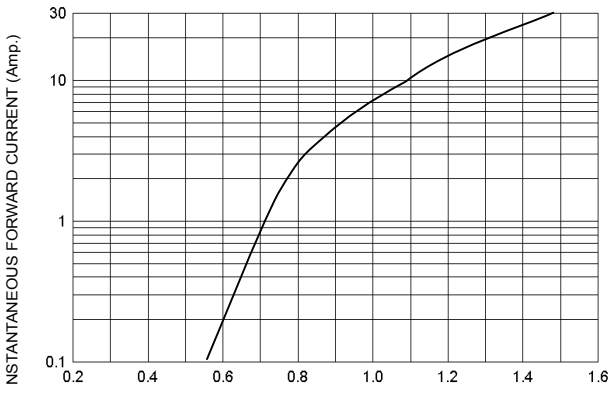


FIG-3 TYPICAL REVERSE CHARACTERISTICS

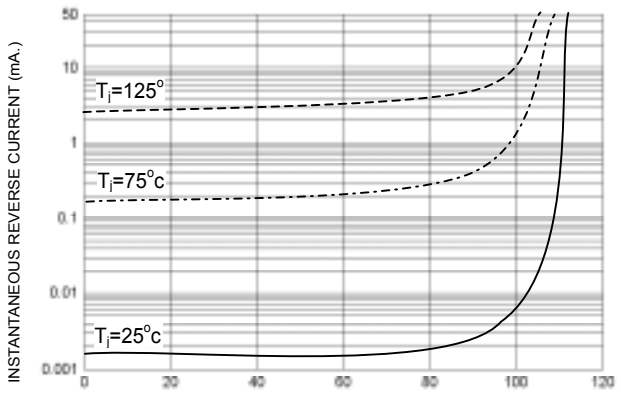


FIG-4 TYPICAL JUNCTION CAPACITANCE

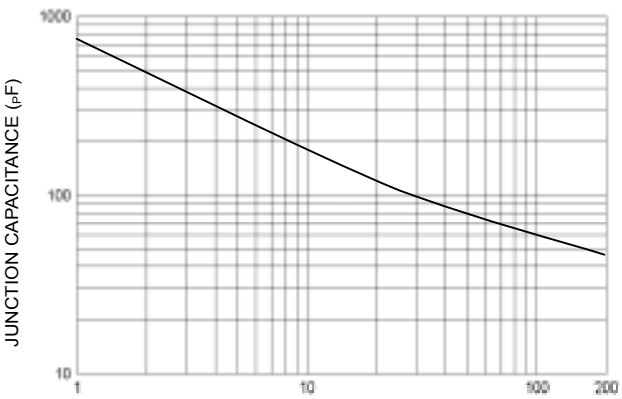


FIG-5 PEAK FORWARD SURGE CURRENT