



Schottky Barrier Rectifiers

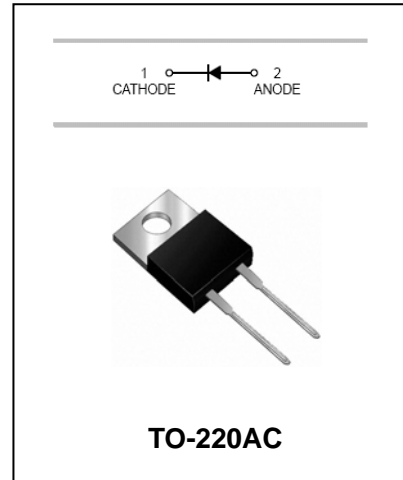
SR1620...SR1680

FEATURES

- Metal-Semiconductor Junction With Guard Ring
- Epitaxial Construction.
- For Use In Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications.
- Low Forward Voltage Drop, Low Switching Losses.
- High Surge Capability.
- The Plastic Material Carries U/L Recognition 94V-0.



Lead-free



MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter	SR 1620	SR 1630	SR 1640	SR 1650	SR 1660	SR 1680	SR 16A0	Unit
V_{RRM}	Recurrent Peak Reverse Voltage	20	30	40	50	60	80	100	V
V_{RMS}	RMS Reverse Voltage	14	21	28	35	42	57	71	V
V_{DC}	DC Blocking Voltage	20	30	40	50	60	80	100	V
$I_{F(AV)}$	Average Forward Total Device Rectified Current @ $T_A=100^\circ\text{C}$	16							A
I_{FSM}	Forward Surge Current 8.3ms Single Half Sine-wave Superimosed on Rated Load	200							A
$R_{\theta JC}$	Typeical thermal resistance(Note 2)	3.0							$^\circ\text{C/W}$
T_j	Operating junction Temperature Range	-65 to +125			-65 to +150				$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65 to +150							$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Test conditions	SR1620- SR1640	SR1650- SR1660	SR1680	SR16A0	UNIT
			MAX				
Reverse Current	I_R	$V_R=V_{RRM}, T_A=25^\circ\text{C}$ $V_R=V_{RRM}, T_A=100^\circ\text{C}$	0.5 30	0.5 50	0.5 50		mA
Forward Voltage	V_F	$I_F=16\text{A}$ (Note 1)	0.65	0.75	0.80	0.85	V



Schottky Barrier Rectifiers

SR1620...SR1680

Note:1.Pulse test:300us pulse width,1% duty cycle.
2.Thermal resistance from junction to case

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

FIG.1-FORWARD CURRENT DERATING CURVE

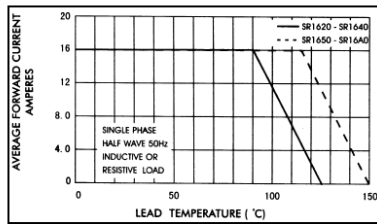


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

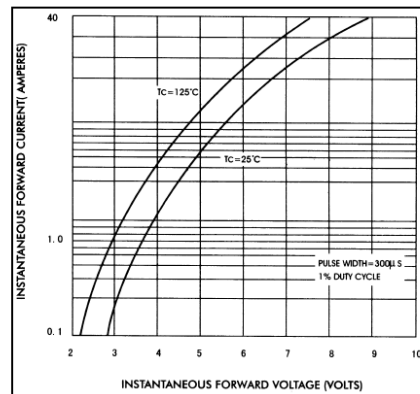


FIG.4-TYPICAL JUNCTION CAPACITANCE

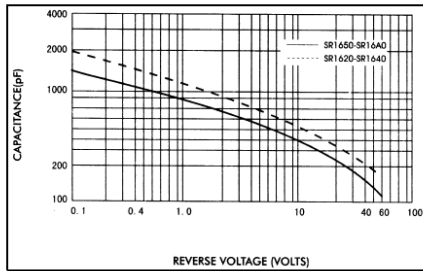


FIG.3-TYPICAL REVERSE CHARACTERISTICS

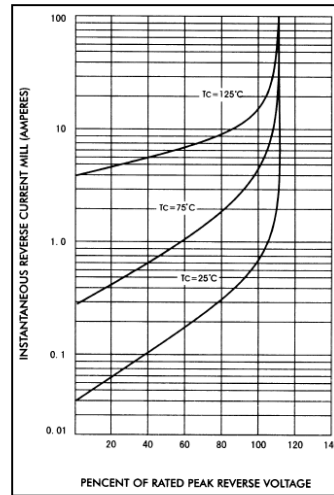
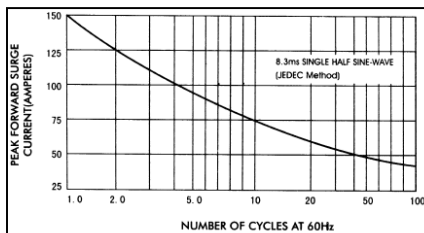


FIG.5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT





Schottky Barrier Rectifiers

SR1620...SR1680

PACKAGE OUTLINE

Plastic surface mounted package

TO-220AC

