

Schottky Barrier Rectifiers

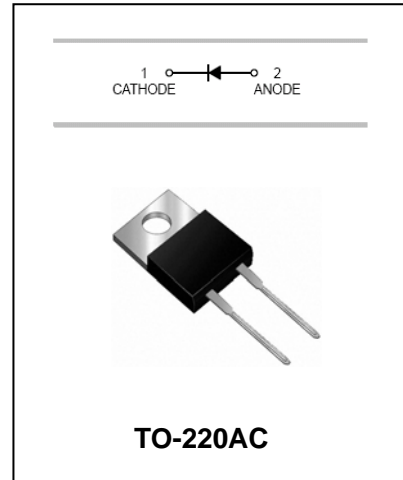
SR820...SR8100

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 Switchover 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 820	SR 830	SR 840	SR 850	SR 860	SR 880	SR 8100	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	56	70	V
V_{DC}	DC Blocking Voltage	20	30	40	50	60	80	100	V
$I_{F(AV)}$	Average Forward Rectified Current	8							A
I_{FSM}	Forward Surge Current 8.3ms Single Half-sine-wave Superimosed on Rated Load	150							A
$R_{\theta JA}$	Typical Thermal Resistance(Note1)	3							°C/W
T_j	Operating Junction Temperature Range	-55 to +125				-55 to +150			°C
T_{stg}	Storage Temperature Range	-55 to +150							°C

Note1:Thermal Resistance Junction to Ambient.



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

Parameter	Symbol	Test conditions	SR820- SR840	SR850- SR860	SR880- SR8100	UNIT
			MAX			
Reverse Current	I_R	$V_R=V_{RRM}, T_A=25^\circ\text{C}$	0.5		0.1	mA
		$V_R=V_{RRM}, T_A=100^\circ\text{C}$	15	25	-	
		$V_R=V_{RRM}, T_A=125^\circ\text{C}$	-	-	50	
Forward Voltage	V_F	$I_F=8\text{A}$ (Note 1)	0.65	0.75	0.85	V

Note:1.Pulse test:300us pulse width,1% duty cycle.

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

FIG.1 – FORWARD CURRENT DERATING CURVE

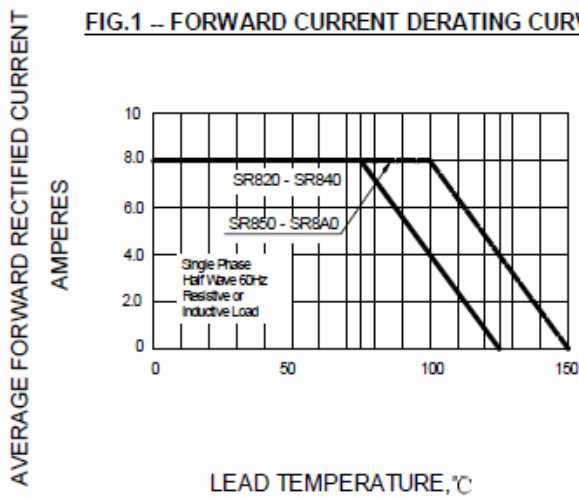


FIG.2 – PEAK FORWARD SURGE CURRENT

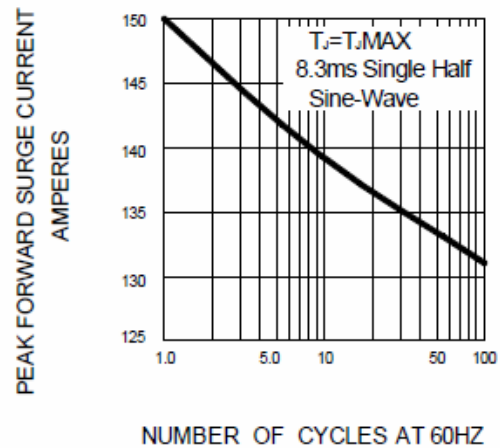
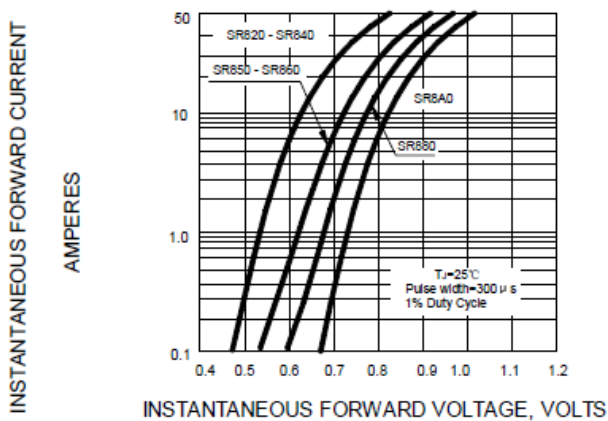


FIG.3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS





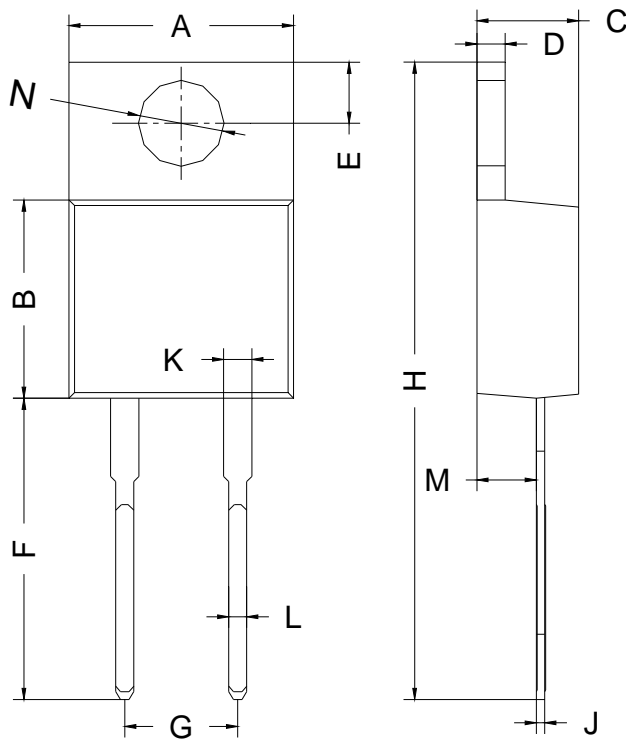
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PACKAGE OUTLINE

Plastic surface mounted package

TO-220AC



TO-220AC		
Dim	Min	Max
A	9.80	10.30
B	8.70	9.10
C	4.57 Typical	
D	1.27 Typical	
E	2.64	2.84
F	13.14	13.74
G	4.98	5.18
H	28.03	28.83
J	0.38 Typical	
K	1.22	1.32
L	0.71	0.91
M	2.50 Typical	
N	3.86 Typical	
All Dimensions in mm		