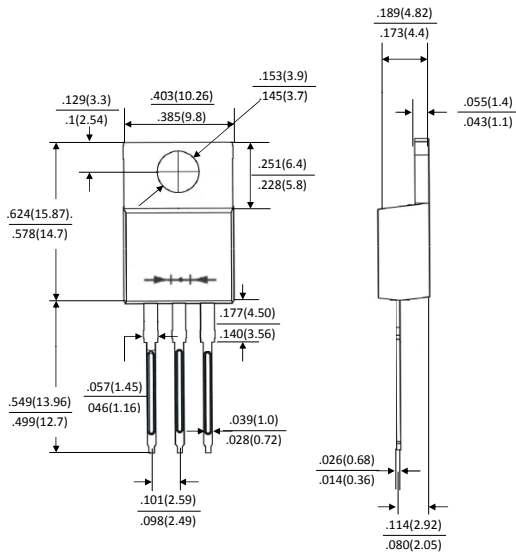


Schottky Barrier Rectifiers



TO-220AB

Dimensions in inches and (millimeters)

Ordering Information	
Part Number	Remark
SR16xxC	General
SR16xxC-H	Halogen Free
SR16xxC-Q	Automotive

PRIMARY CHARACTERISTICS	
I_F	16A
V_{RRM}	20~200V
I_{FSM}	125A
V_F	0.55V, 0.70V, 0.85V, 0.92V
T_J max	125°C , 150°C

Features

- Guard Ring for over voltage Protection
- High forward surge capability
- High frequency operation
- Component in accordance to RoHS 2002/95/EC
- AEC-Q101 qualified

Mechanical Data

- Case: TO-220AB
- Case Material: Molded Plastic, UL Flammability Classification Rating 94V-0
- Terminals: Matte Tin Finish annealed over copper Leadframe. Solderable per MIL-STD-202
- Weight: 1.948 grams (approximate)

MAXIMUM RATINGS (TA=25°C unless otherwise noted)												
PARAMETER	SYMBOL	SR16 20C	SR16 30C	SR16 40C	SR16 50C	SR16 60C	SR16 80C	SR16 100C	SR16 150C	SR16 200C	UNIT	
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	V	
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	V	
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	150	200	V	
Maximum average forward rectified current (Total) (Per Leg)	I_F	16 8									A	
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	125.0									A	
Maximum Instantaneous $I_F=8A$ @ 25°C Forward Voltage $I_F=8A$ @ 100°C	V_F	0.55 0.52		0.70 0.60		0.85 0.70		0.92 0.80		V		
Maximum DC Reverse Current @ Tc=25°C at Rated DC Blocking Voltage @ Tc=100°C	I_R	0.5 30				0.2 10				mA		
Typical Junction Capacitance(NOTE1)	C_j	450			350		250		200 150		pF	
Typical Thermal Resistance	$R_{\theta JC}$	3									°C/W	
Operating Temperature Range	T_J	-55 to +125					-55 to +150					°C
Storage Temperature Range	T_{STG}	-55 to +150									°C	

NOTES:1. Measured at 1.0MHZ and applied reverse voltage of 4.0V DC

Schottky Barrier Rectifiers

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

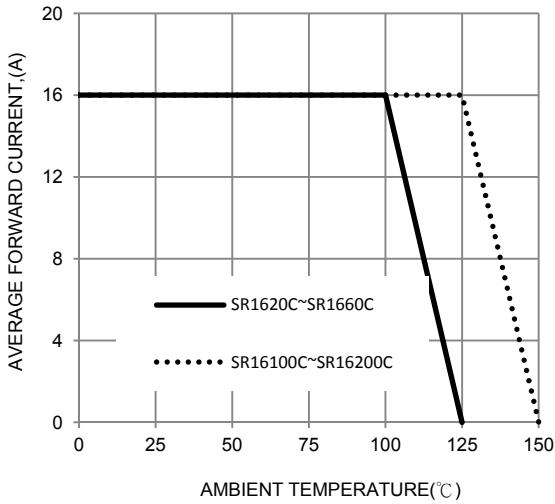


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

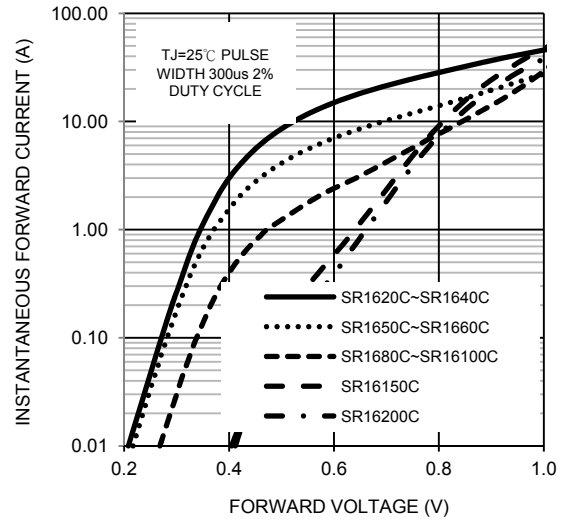


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

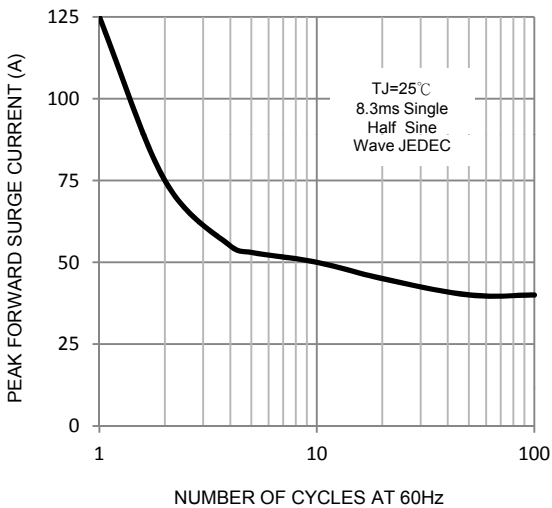


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

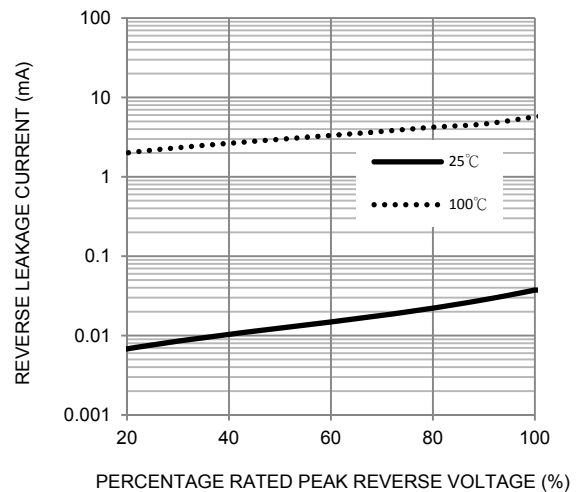


FIG. 5-TYPICAL JUNCTION CAPACITANCE

