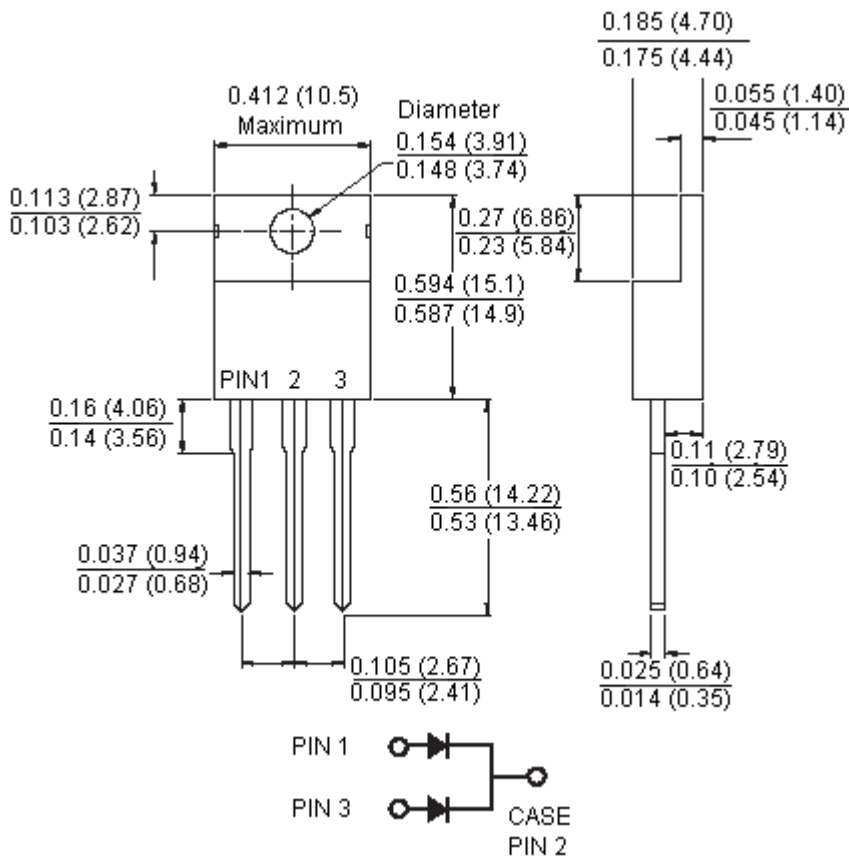




Features:

- Low power loss, high efficiency.
- High current capability, Low V_F .
- High reliability.
- High surge current capability.
- Epitaxial construction.
- Guard-ring for transient protection.
- For use in low voltage, high frequency inverter, free wheeling, and polarity protection application.

TO-220AB



Mechanical Data:

Cases	: TO-220AB moulded plastic.
Terminals	: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed.
Polarity	: As marked.
High temperature soldering guaranteed	: 260°C/10 seconds/0.25 inch, (6.35mm) from case.
Weight	: 2.24 grams.

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

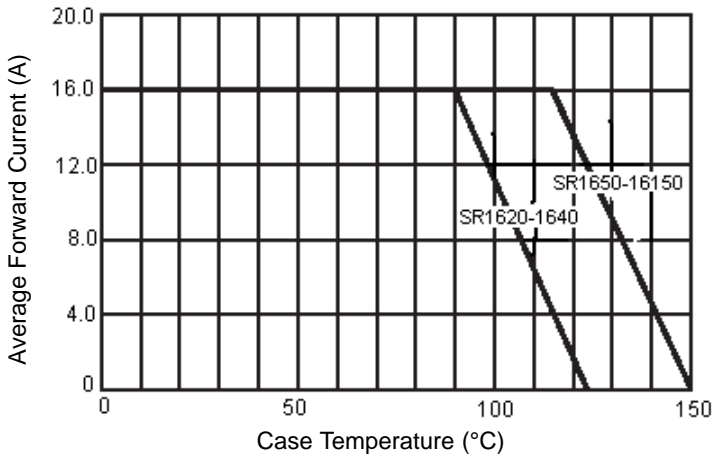
Type Number	Symbol	SR16 20	SR16 30	SR16 40	SR16 60	SR16 100	SR16 150	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	60	100	150	V
Maximum RMS Voltage	V_{RMS}	14	21	28	42	70	105	
Maximum DC Blocking Voltage	V_{DC}	20	30	40	60	100	150	
Maximum Average Forward Rectified Current	$I_{(AV)}$	16.0						A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	170						
Maximum Instantaneous Forward Voltage at 8.0A	V_F	0.55			0.70	0.90	1.05	V
Maximum DC Reverse Current at $T_C = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_C = 100^\circ\text{C}$	I_R	0.5			0.1			μA
		15			10	5		μA
Typical Junction Capacitance (Note 2)	C_j	440			320			nS
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	2.5						$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	-65 to +125			-65 to +150			$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to +150						

Notes: 1. Mounted on Heatsink Size of 2 x 3 x 0.25 inches Al-Plate.

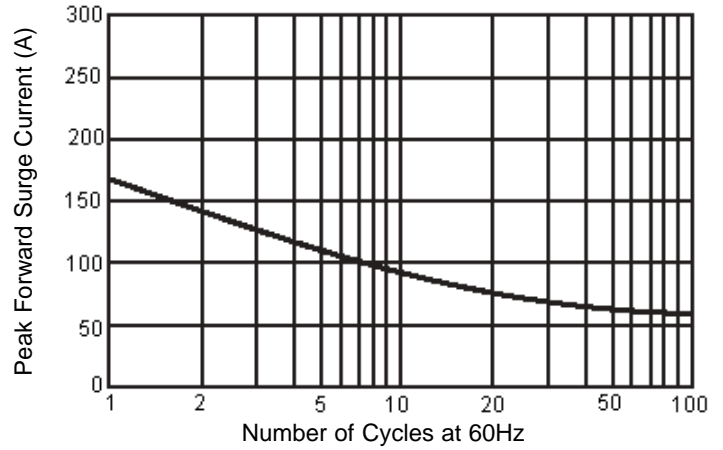
2. Measured at 1MHz and Applied Reverse Voltage of 4.0V dc.

Ratings and Characteristic Curves (SR16100, 16150, 1620, 1630, 1640, 1660)

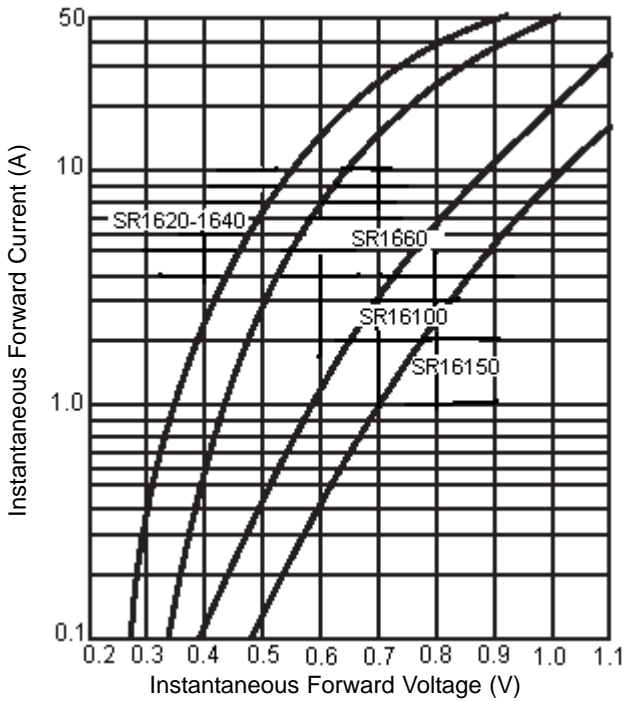
Maximum Forward Current Derating Curve



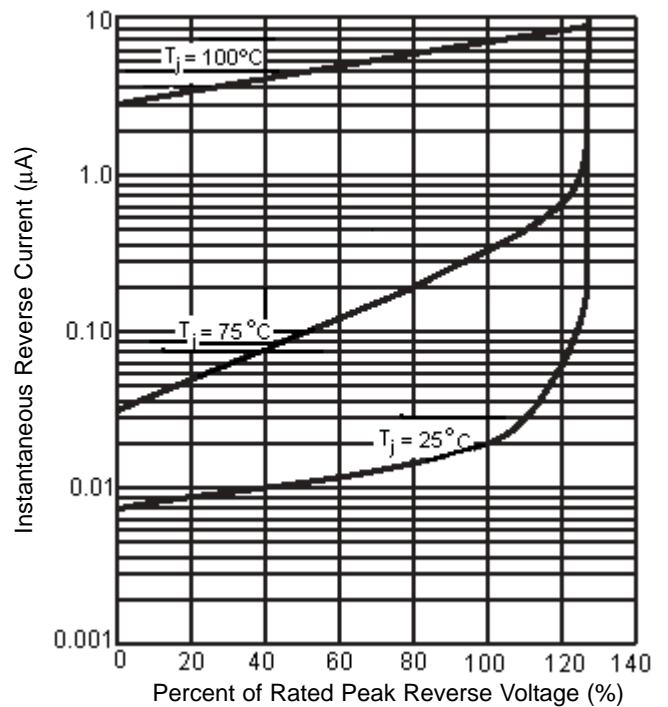
Maximum Non-Repetitive Forward Surge Current Per Leg



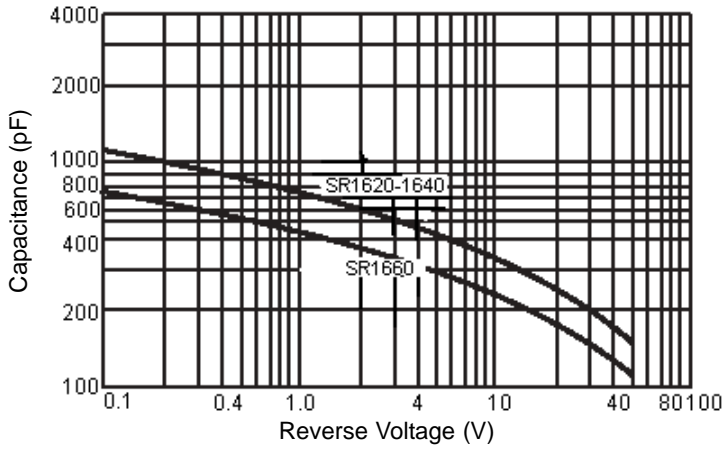
Typical Forward Characteristics Per Leg



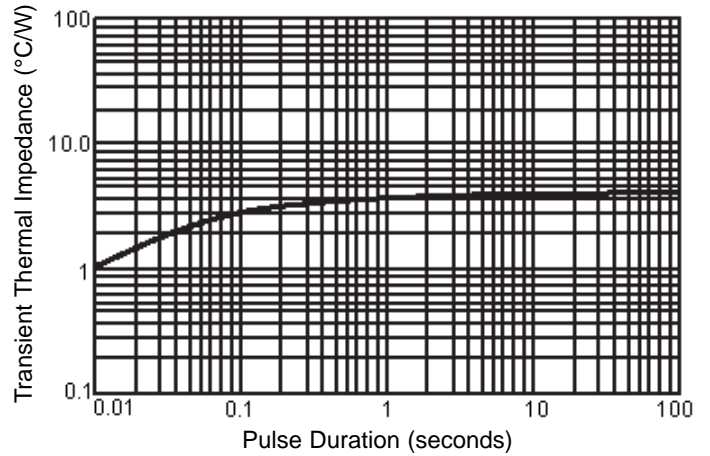
Typical Reverse Characteristics Per Leg



Typical Junction Capacitance Per Leg



Typical Transient Thermal Characteristics



Part Number Table

Description	Part Number
Diode, Schottky, 16A, 100V	SR16100
Diode, Schottky, 16A, 150V	SR16150
Diode, Schottky, 16A, 20V	SR1620
Diode, Schottky, 16A, 30V	SR1630
Diode, Schottky, 16A, 40V	SR1640
Diode, Schottky, 16A, 60V	SR1660

Notes:

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