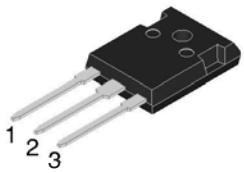
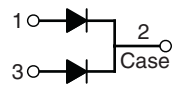
16.0 Amp. Schottky Barrier Rectifier

TO-3P





Common Cathode
Suffix "C"

Voltage	Current
20 V to 150 V	16.0 A

- Dual rectifier construction, positive center-tap
- Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High current capability, low VF
- High surge capability
- Epitaxial construction
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- Guardring for transient protection
- High temperature soldering guaranteed: 260°C/10 seconds, 4.3mm lead lengths at 5 lbs., (2.3kg) tension

Mechanical Data

- Cases: JEDEC TO-3P/TO-247AD molded plastic
- Terminals: Leads solderable per MIL-STD-750, Method 2026
- Polarity: As marked
- Mounting position: Any
- Weight: 5.6 grams

Absolute Maximum Ratings, according to IEC publication No. 134

		SR 1620PT	SR 1640PT	SR 1660PT	SR 16100PT	SR 16150PT
V_{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	20	40	60	100	150
V_{RMS}	Maximum RMS Voltage (V)	14	28	42	70	105
V_{DC}	Maximum DC blocking voltage (V)	20	40	60	100	150
$I_{F\ (AV)}$	Maximum Average Forward Rectified Current See Fig.	16 A				
I_{FSM}	Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	200 A				
C_j	Typical Junction Capacitance at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.	700 pF		400 pF		
T_j	Operating Junction Temperature Range	– 65 to + 125 °C			– 65 to + 150 °C	
T_{stg}	Storage Temperature Range	– 65 to +150 °C				

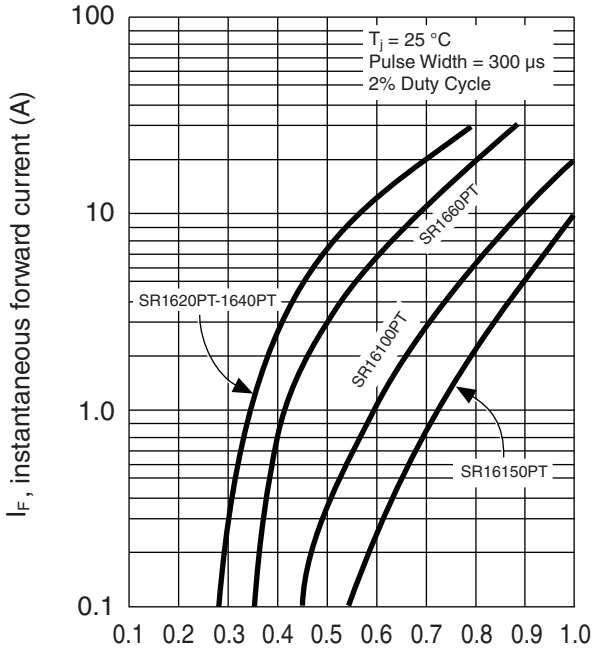
Electrical Characteristics

		SR 1620PT	SR 1640PT	SR 1660PT	SR 16100PT	SR 16150PT
V_F	Maximum Instantaneous Forward Voltage @ 8.0A (Note 2)	0.55 V		0.70 V	0.90 V	1.0 V
I_R	Maximum D.C. Reverse Current @ T_C=25 °C	0.5 mA			0.1 mA	
	at Rated DC Blocking Voltage @ T_C=100 °C	15 mA		10 mA	5 mA	
R_{thj-C}	Typical Thermal Resistance Per Leg (Note 1)	3.0 °C/W				

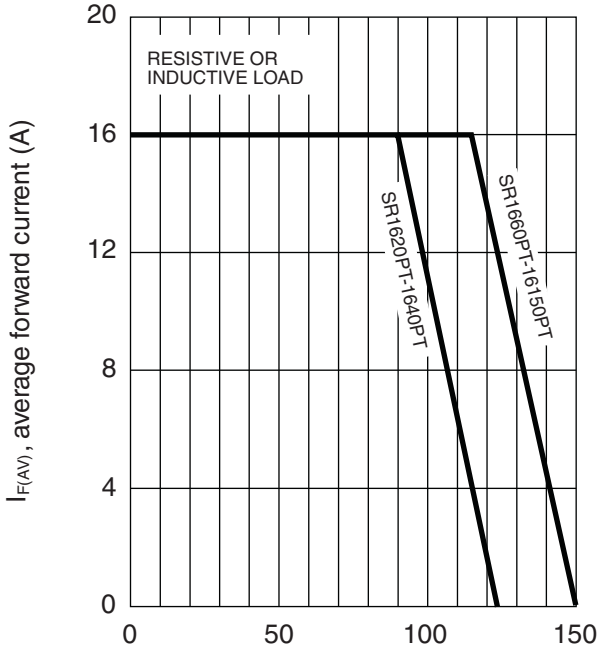
Notes: 1. Thermal Resistance from junction to Case Per Leg, With Heatsink Size of 50.4 mm x 76.2 mm x 6.35 mm Al-Plate.
2. 300µs Pulse Width, 2% Duty Cycle

Rating And Characteristic Curves

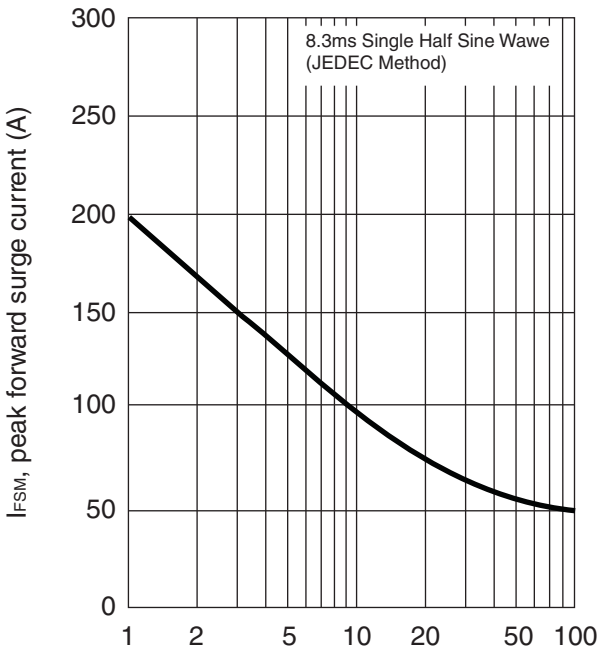
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG



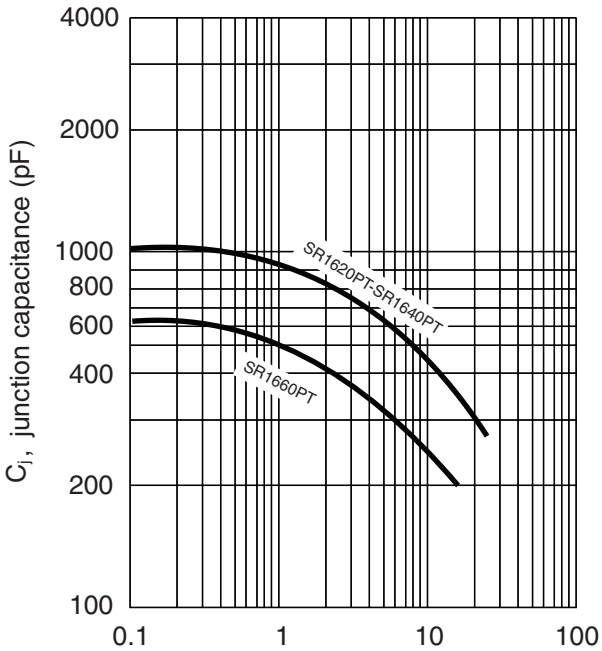
MAXIMUM FORWARD CURRENT DERATING CURVE



MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

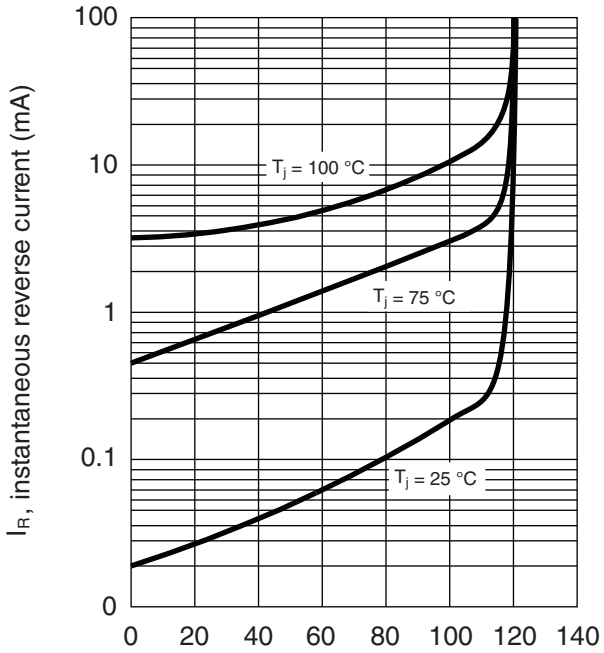


TYPICAL JUNCTION CAPACITANCE PER LEG

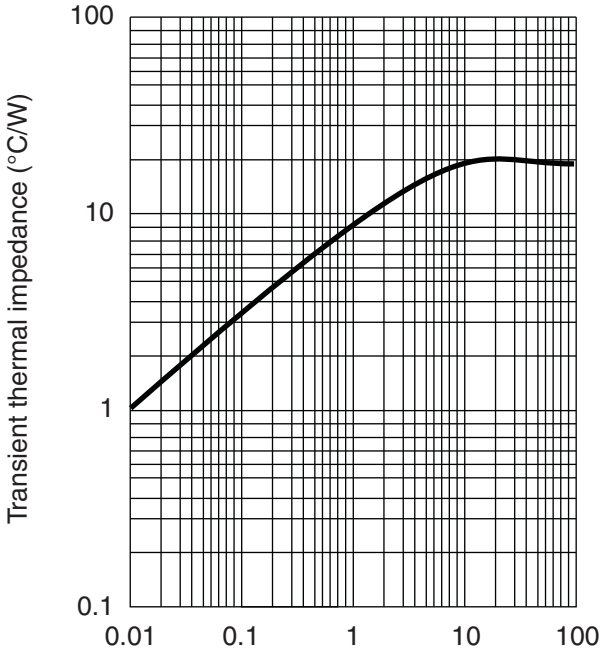


Rating And Characteristic Curves

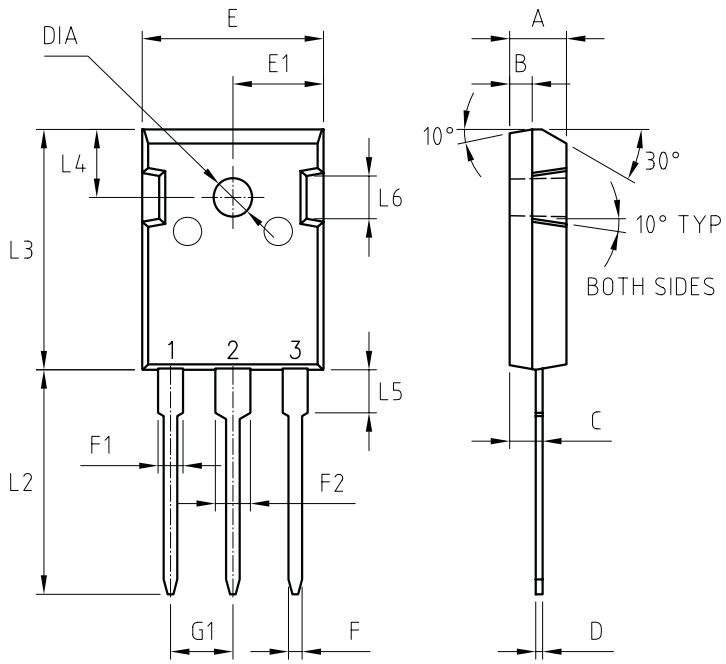
TYPICAL REVERSE CHARACTERISTICS PER LEG



TYPICAL TRANSIENT THERMAL CHARACTERISTICS



PACKAGE MECHANICAL DATA TO-3P



REF.	DIMENSIONS Milimeters		
	Min.	Nominal	Max.
A	4.90		5.16
B		1.98	
C	2.7		3.0
D	0.51		0.76
E	15.9		16.4
E1	7.9		8.2
F	1.12		1.22
F1	1.93		2.18
F2	2.97		3.22
G1	5.2		5.7
L2	19.7		20.2
L3	20.8		21.3
L4	5.7		6.2
L5	3.5		4.1
L6		4.3	
DIA	2.9		3.4