SRT12 THRU SRT16

1.0 AMP. Schottky Barrier Rectifiers

Voltage Range
20 to 60 Volts
Current
1.0 Ampere

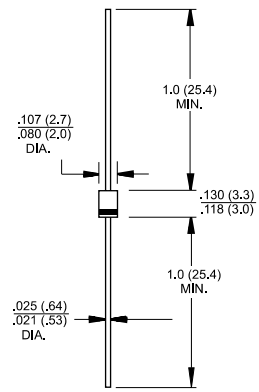
Features

- ✧ Plastic material used carries Underwriters Laboratory Classification 94V-0
- ✧ Metal silicon junction, majority carrier conduction
- ✧ Low power loss, high efficiency
- ✧ High current capability, low forward voltage drop
- ✧ High surge capability
- ✧ Guardring for overvoltage protection
- ✧ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- ✧ High temperature soldering guaranteed:
- ✧ 250°C/10seconds, 0.375" (9.5mm) lead length at 5 lbs. (2.3 kg) tension

Mechanical Data

- ✧ Cases: Molded plastic body
- ✧ Terminals: Plated Axial leads, solderable per MIL-STD-750, Method 2026
- ✧ Polarity: Color band denotes cathode end
- ✧ Mounting position: Any
- ✧ Weight: 0.20 gram

TS-1



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Type Number	SRT12	SRT13	SRT14	SRT15	SRT16	Units
Maximum Recurrent Peak Reverse Voltage	20	30	40	50	60	V
Maximum RMS Voltage	14	21	28	35	42	V
Maximum DC Blocking Voltage	20	30	40	50	60	V
Maximum Average Forward Rectified Current See Fig. 1	1.0					A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	40.0					A
Maximum Instantaneous Forward Voltage @ 1.0A	0.55			0.70		V
Maximum DC Reverse Current @ T_A=25°C at Rated DC Blocking Voltage @ T_A=100°C	0.5 10.0					mA mA
Typical Thermal Resistance RθJA(Note 1)	50					°C/W
Typical Junction Capacitance (Note 2)	110			80		pF
Operating Junction Temperature Range T_J	-65 to + 125			-65 to + 150		°C
Storage Temperature Range T_{STG}	-65 to + 150					°C

Notes: 1. Thermal Resistance from Junction to Ambient at .375" (9.5mm) Lead Length, PC Board Mounted.

2. Measured at 1.0 MHz and Applied V_R=4.0 Volts

RATINGS AND CHARACTERISTIC CURVES (SRT12 THRU SRT16)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

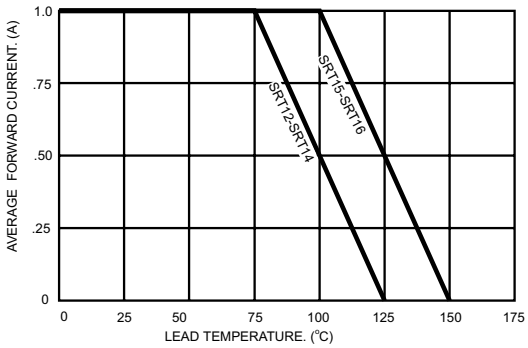


FIG.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

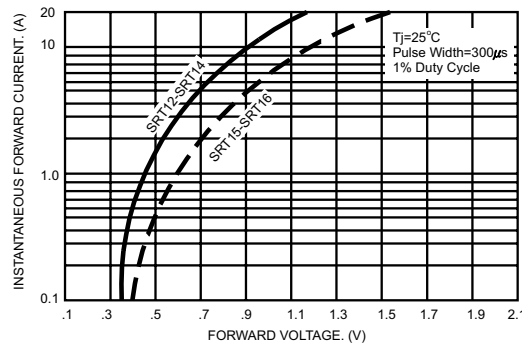


FIG.3- TYPICAL REVERSE CHARACTERISTICS

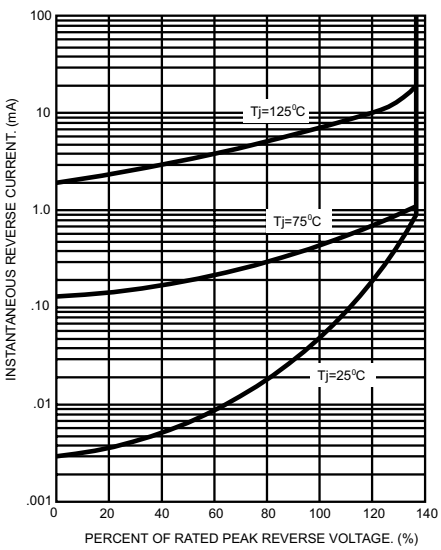


FIG.4- TYPICAL JUNCTION CAPACITANCE

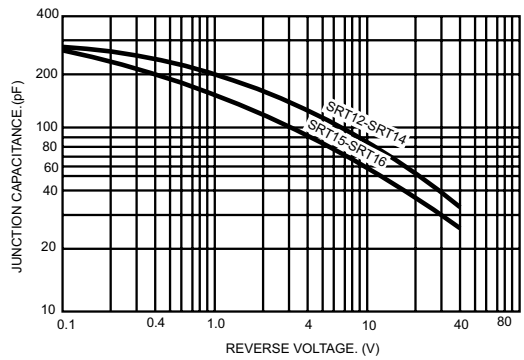


FIG.5- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT