



# SRT12 THRU SRT110

## 1.0 AMP. Schottky Barrier Rectifiers



Voltage Range  
20 to 100 Volts  
Current  
1.0 Ampere

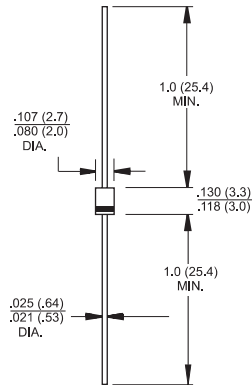
### Features

- ✧ 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:  
260°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.

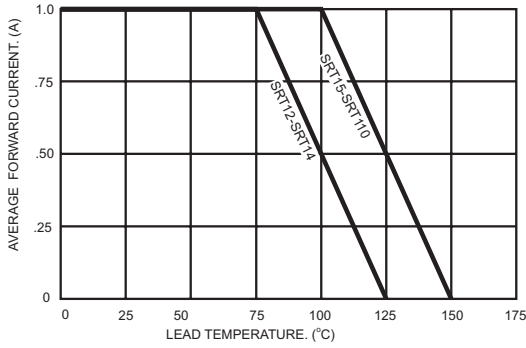
For capacitive load, derate current by 20%

Type Number	Symbol	SRT 12	SRT 13	SRT 14	SRT 15	SRT 16	SRT 19	SRT 110	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RM}$	20	30	40	50	60	90	100	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	63	70	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	90	100	V
Maximum Average Forward Rectified Current See Fig. 1	$I_o$	1.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	25.0							A
Maximum Instantaneous Forward Voltage @ 1.0A	$V_F$	0.55			0.70		0.80		V
Maximum DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=100^\circ C$	$I_R$	0.5 10.0					0.05 -		mA mA
Typical Thermal Resistance (Note 1)	$R\theta_{JA}$	50							$^\circ C/W$
Typical Junction Capacitance ( Note 2 )	$C_j$	110			80		28		pF
Operating Junction Temperature Range	$T_J$	- 65 to + 125			-65 to + 150				$^\circ C$
Storage Temperature Range	$T_{STG}$	- 65 to + 150							$^\circ C$

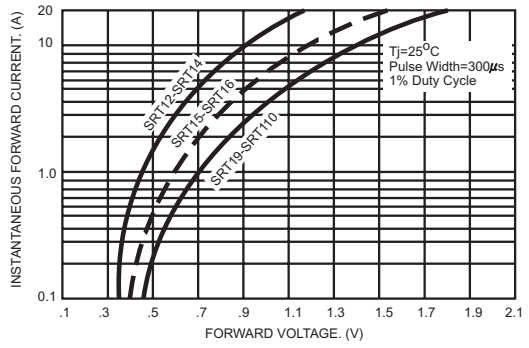
- Notes: 1. Mount on Cu-Pad Size 5mm x 5mm on P.C.B.  
2. Measured at 1.0 MHz and Applied  $V_R=4.0$  Volts

## RATINGS AND CHARACTERISTIC CURVES (SRT12 THRU SRT110)

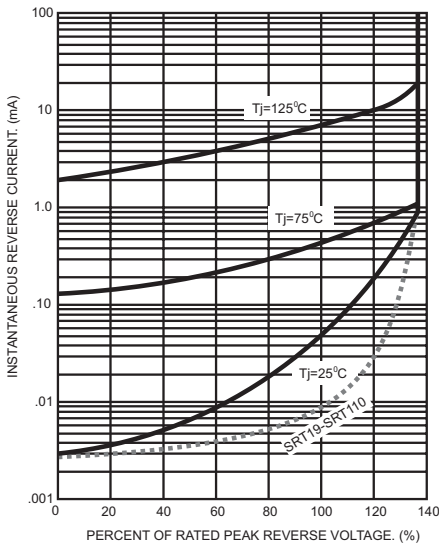
**FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE**



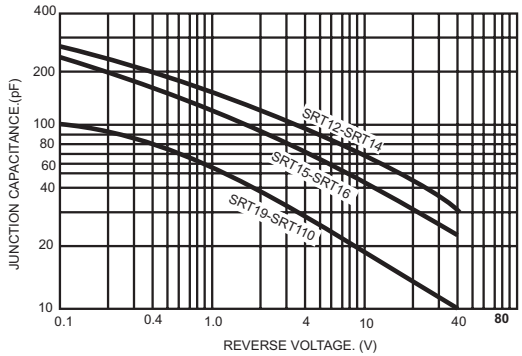
**FIG. 2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 3- TYPICAL REVERSE CHARACTERISTICS**



**FIG. 4- TYPICAL JUNCTION CAPACITANCE**



**FIG. 5- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**

