

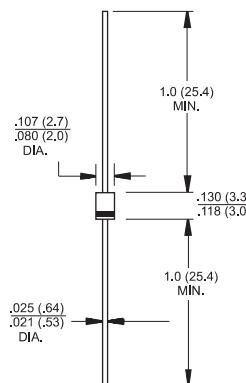


SRT12 THRU SRT110

1.0 AMP. Schottky Barrier Rectifiers

Voltage Range
20 to 100 Volts
Current
1.0 Ampere

TS-1



Dimensions in inches and (millimeters)

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

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 _{RRM}	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 _(AV)	1.0						A			
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	25						A			
Maximum Instantaneous Forward Voltage @ 1.0A	V _F	0.55		0.70		0.80		V			
Maximum DC Reverse Current @ T _A =25°C at Rated DC Blocking Voltage @ T _A =100°C	I _R	0.5 10			0.05		mA mA				
Maximum Reverse Recovery time (Note 3)	T _{rr}	0.1						μS			
Typical Thermal Resistance (Note 1)	R _{θ JA}	50						°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			°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

3. Reverse Recovery Test Conditions: I_F=100mA, I_{RP}=100mA.

RATINGS AND CHARACTERISTIC CURVES (SRT12 THRU SRT110)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

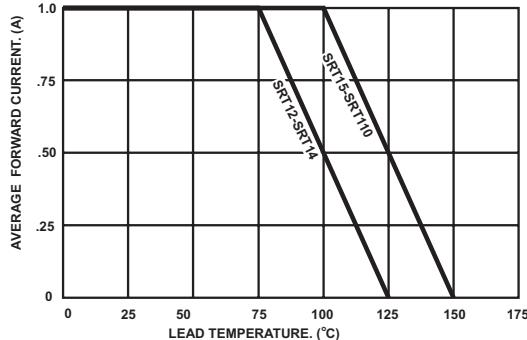


FIG.3- TYPICAL REVERSE CHARACTERISTICS

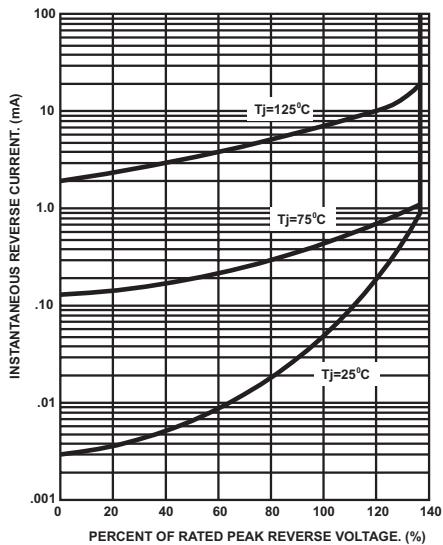


FIG.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

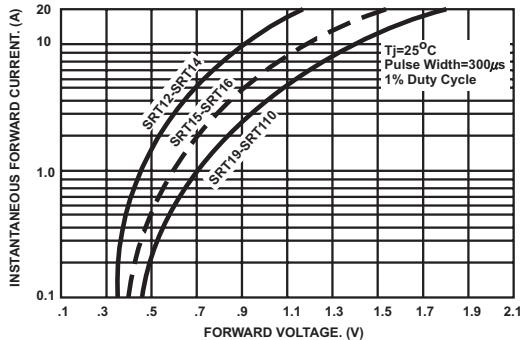


FIG.4- TYPICAL JUNCTION CAPACITANCE

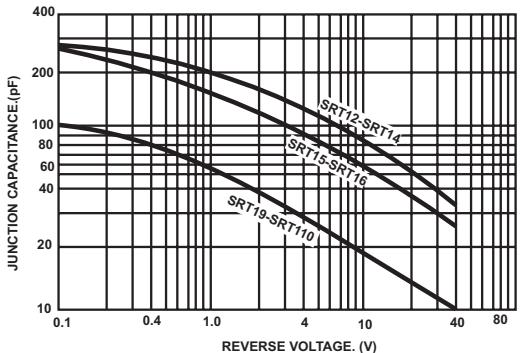


FIG.5- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

