

SRT12 - SRT115

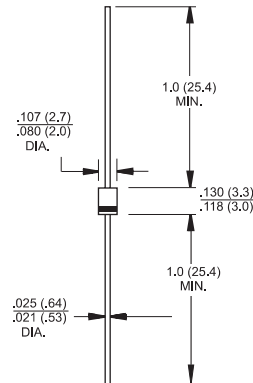
1.0 AMP. Schottky Barrier Rectifiers

TS-1



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
- ✧ Guard-ring for transient 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

Dimensions in inches and (millimeters)

- ✧ Cases: Molded plastic body
- ✧ Terminals: Pure tin plated, lead free., solderable per MIL-STD-750, Method 2026
- ✧ Polarity: Color band denotes cathode
- ✧ 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	SRT 115	Units
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	90	100	150	V
Maximum RMS Voltage	V _{RMS}	14	21	28	35	42	63	70	105	V
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	90	100	150	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		0.90	V
Maximum DC Reverse Current @ T _A =25 °C at Rated DC Blocking Voltage @ T _A =125 °C	I _R	0.5					0.1			mA
		10			5		2.0			mA
Typical Junction Capacitance (Note 2)	C _j	110			80		28			pF
Typical Thermal Resistance (Note 1)	R _{θJA}	50								°C/W
Operating Junction Temperature Range	T _J	-65 to + 125				-65 to + 150				°C
Storage Temperature Range	T _{STG}	- 65 to + 150								°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 SRT115)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

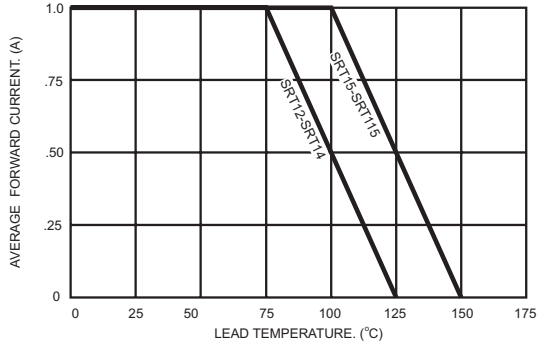


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

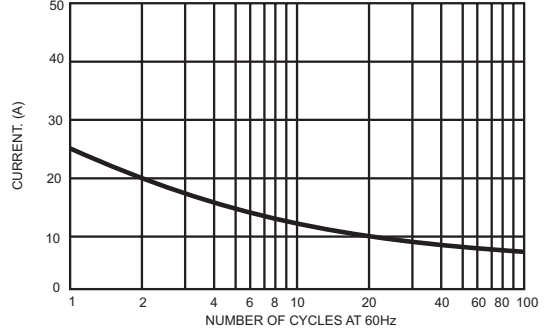


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

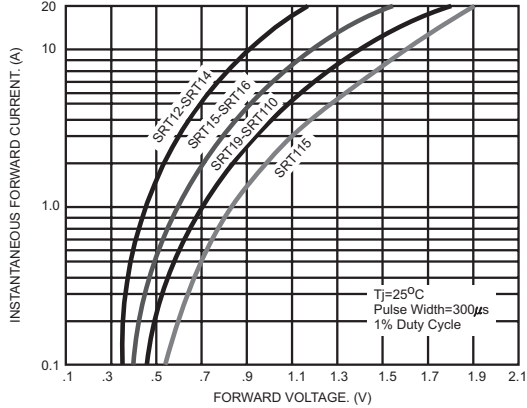


FIG.4- TYPICAL REVERSE CHARACTERISTICS

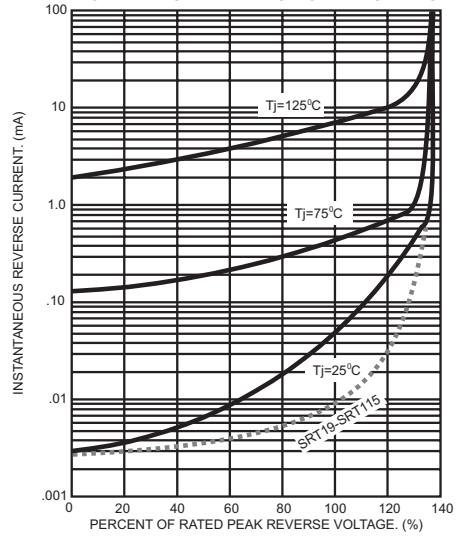


FIG.5- TYPICAL JUNCTION CAPACITANCE

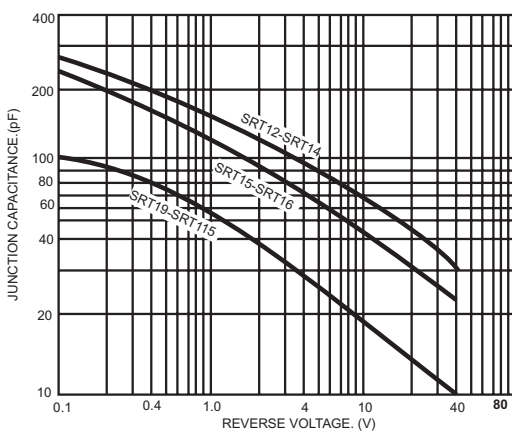


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS

