

SRT12 - SRT115

1.0 AMP. Schottky Barrier Rectifiers

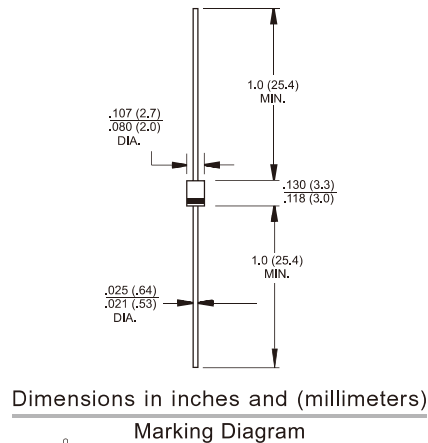
TS-1

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
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode.

Mechanical Data

- ✧ 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 grams



SRT1X = Specific Device Code
G = Green Compound
Y = Year
M = Work Month

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	VRRM	20	30	40	50	60	90	100	150	V
Maximum RMS Voltage	VRMS	14	21	28	35	42	63	70	105	V
Maximum DC Blocking Voltage	VDC	20	30	40	50	60	90	100	150	V
Maximum Average Forward Rectified Current See Fig. 1	IF(AV)	1.0								A
Peak Forward Surge Current, 8,3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	IFSM	25								A
Maximum Instantaneous Forward Voltage @ 1.0A	VF	0.55			0.70		0.80		0.90	V
Maximum D.C. Reverse Current at Rated DC Blocking Voltage (Note1)	IR	0.5				0.1				mA
@ TA=25 °C		10				5				mA
@ TA=100 °C		-				-				mA
@ TA=125 °C		-				2				
Typical Junction Capacitance (Note 2)	Cj	110			80		28			pF
Typical Thermal Resistance (Note3)	RθJA	50								°C/W
Operating Junction Temperature Range	TJ	-65 to + 15			-65 to + 150					°C
Storage Temperature Range	TSTG	- 65 to + 150								°C

Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle
2. Measured at 1.0 MHz and Applied $V_R=4.0$ Volts
3. Mount on Cu-Pad Size 5mm x 5mm on P.C.B.

Version: E10

RATINGS AND CHARACTERISTIC CURVES (SRT12 THRU SRT115)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

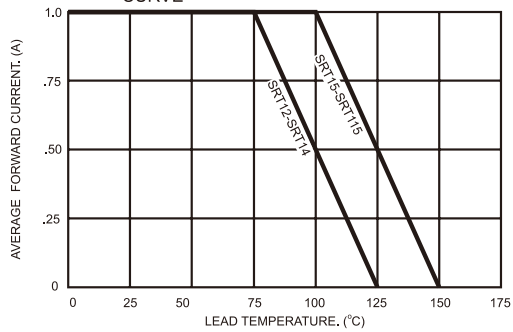


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

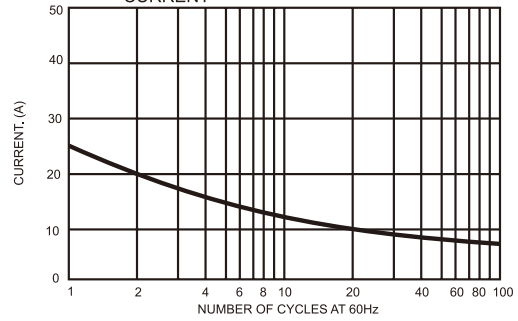


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

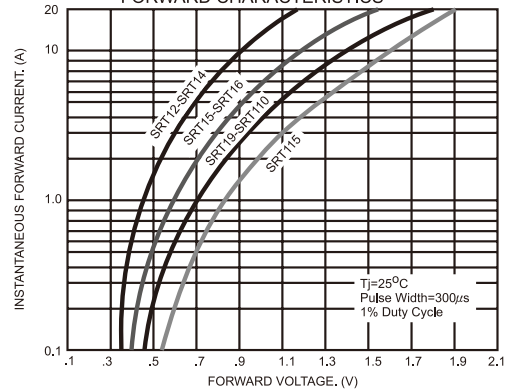


FIG.4- TYPICAL REVERSE CHARACTERISTICS

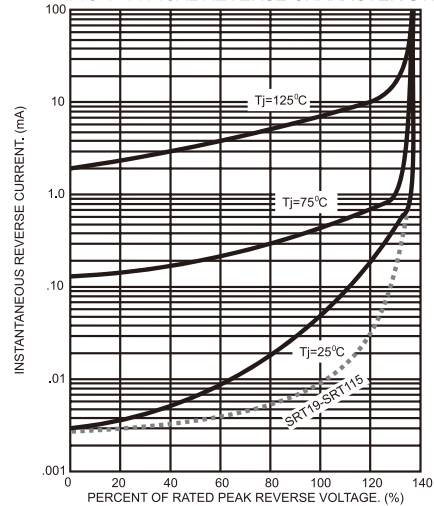


FIG.5- TYPICAL JUNCTION CAPACITANCE

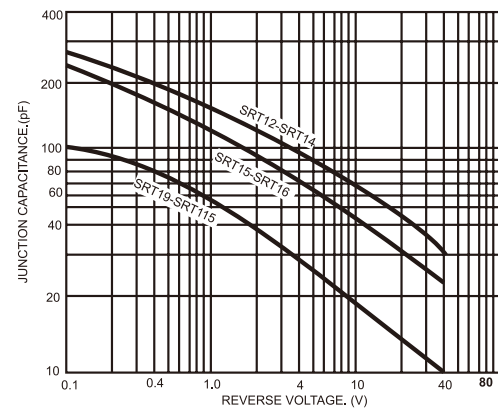


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS

