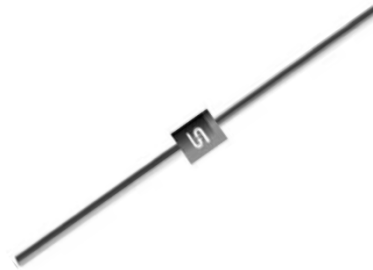


Features

- ✧ 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

Ordering Information (example)

Part No.	Package	Packing	INNER TAPE	Packing code	Green Compound Packing code
SRT12	TS-1	3K / AMMO box	26mm	P0	P0G

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	$I_{F(AV)}$	1								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 (Note 1) @ 1 A	V_F	0.55		0.70		0.80		0.90		V	
Maximum D.C. Reverse Current at Rated DC Blocking Voltage @ $T_A=25^\circ\text{C}$ @ $T_A=100^\circ\text{C}$ @ $T_A=125^\circ\text{C}$	I_R	0.5					0.1				mA
		10		5		-				mA	
		-					2				mA
Typical Junction Capacitance (Note 2)	C_j	110		80		28				pF	
Typical Thermal Resistance	$R_{\theta JA}$	50								$^\circ\text{C/W}$	
Operating Junction Temperature Range	T_J	- 65 to + 125				- 65 to + 150				$^\circ\text{C}$	
Storage Temperature Range	T_{STG}	- 65 to + 150								$^\circ\text{C}$	

Note1: Pulse Test with PW=300 usec, 1% Duty cycle

Note2: 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

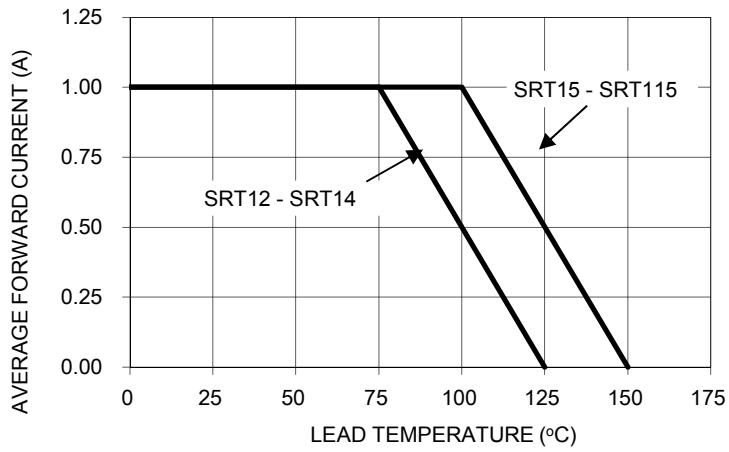


FIG. 2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

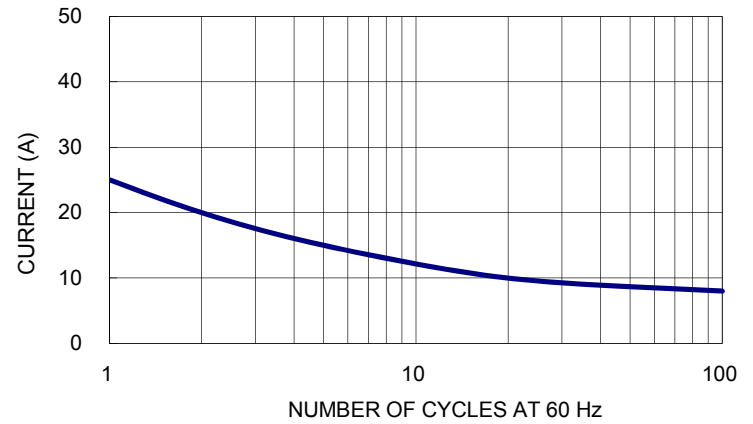


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

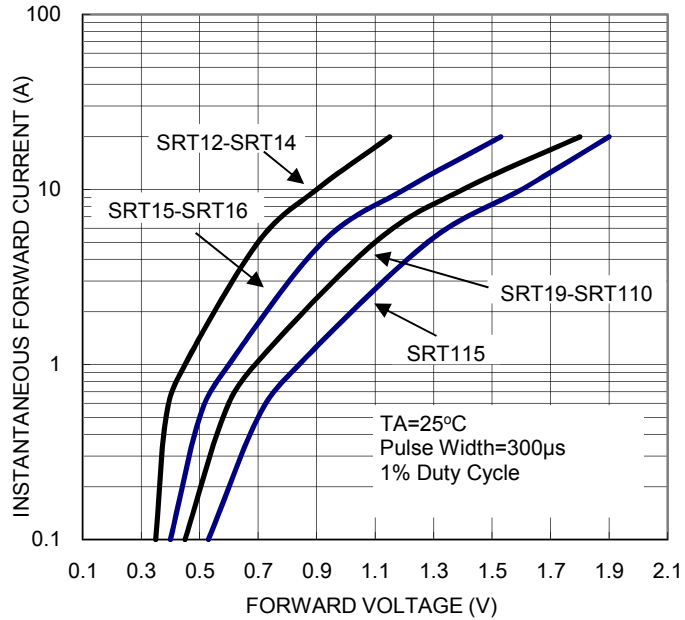


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

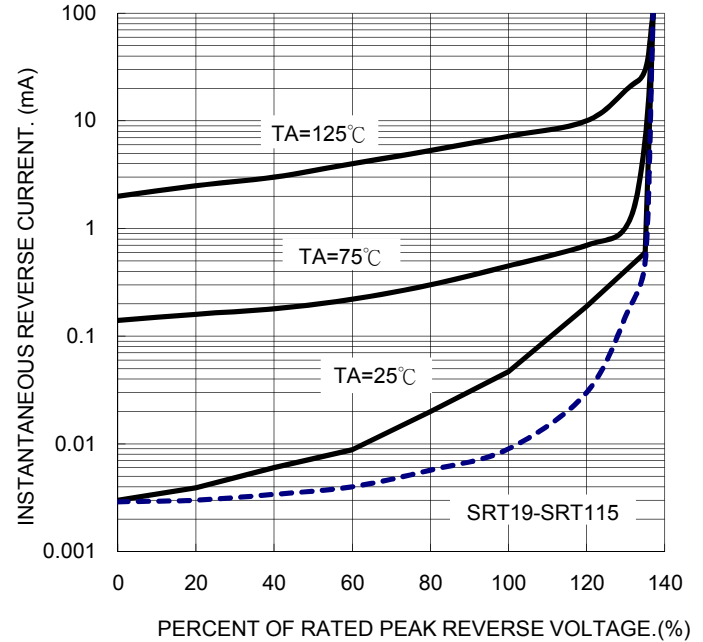


FIG. 5- TYPICAL JUNCTION CAPACITANCE

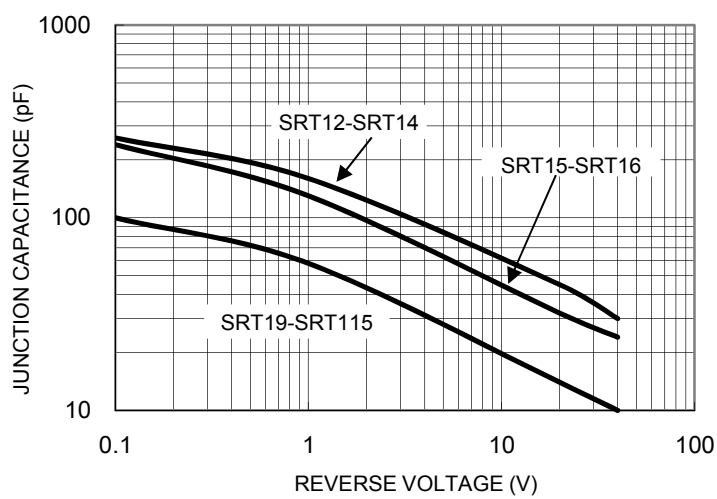
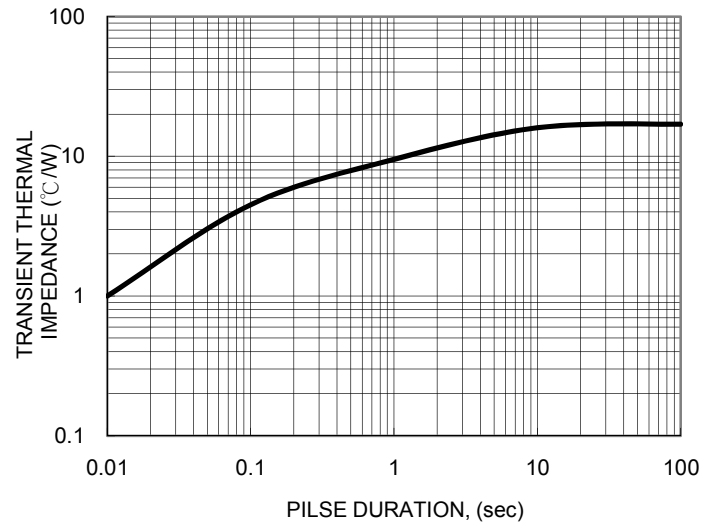


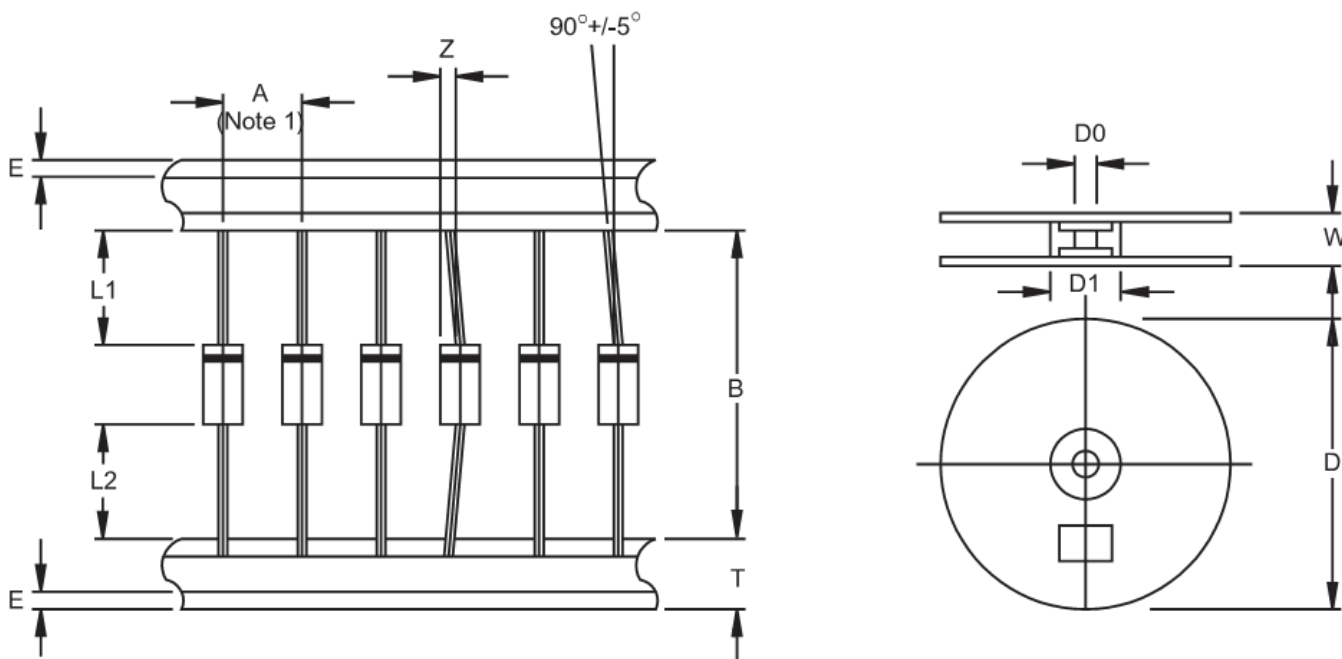
FIG. 6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS



Ordering information

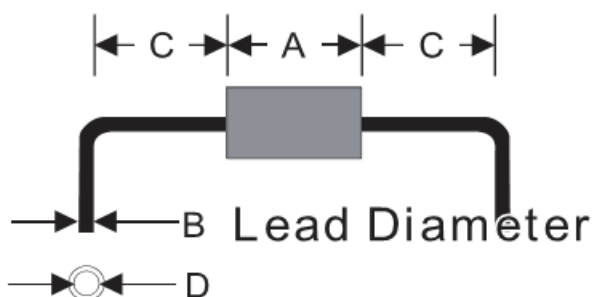
Part No.	Package	Packing	INNER TAPE	Packing code	Green Compound Packing code
SRT1x (Note)	TS-1	3K / AMMO box	26mm	A1	A1G
	TS-1	3K / AMMO box	52mm	A0	A0G
	TS-1	5K / 13" Reel	52mm	R0	R0G
	TS-1	1K / Bulk packing		B0	B0G

Note: "x" is Device Code from "2" thru "15".

AXIAL LEAD TAPING SPECIFICATIONS


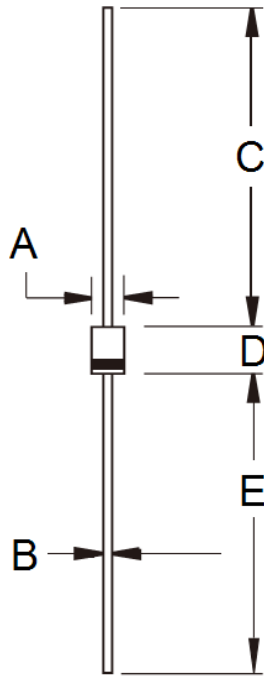
Outline	A	B	Z	T	E	L1-L2	D	D1	D0	W
		±0.5	±1.5	MAX	±0.4	MAX	MAX		±0.3	±0.4
TS-1	5	26	1.2	6	0.8	1	330	85.7	16.6	76
TS-1	5	52.4	1.2	6	0.8	1	330	85.7	16.6	76

Unit (mm)

Suggested Mounting Hole Rule


Symbol	Unit(mm)
A	3
B	0.6
C	3.0
D	1

Dimensions



DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	2.00	2.70	0.079	0.106
B	0.53	0.64	0.021	0.025
C	25.40	-	1.000	-
D	3.00	3.30	0.118	0.130
E	25.40	-	1.000	-

Marking Diagram



- P/N = Specific Device Code
- G = Green Compound
- YW = Date Code