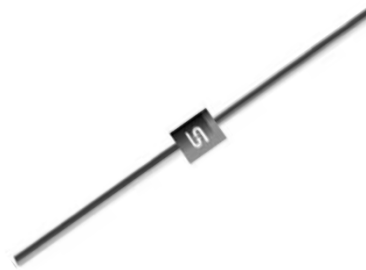


### Features

- ✧ Low power loss, High efficiency
- ✧ High current capability, Low VF
- ✧ High reliability
- ✧ High surge current capability
- ✧ Epitaxial construction
- ✧ Guard-ring for transient protection
- ✧ For use in low voltage, high frequency inverter, free wheeling, and polarity protection application
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode



### Mechanical Data

- ✧ Cases: DO-41 molded plastic
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ Lead: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- ✧ High temperature soldering guaranteed: 260°C/10s / .375", (9.5mm) lead lengths at 5 lbs, (2.3kg) tension
- ✧ Weight: 0.33 grams

### Ordering Information (example)

Part No.	Package	Packing	INNER TAPE	Packing code	Green Compound Packing code
SR102	DO-41	3K / AMMO box	52mm	A0	A0G

### 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	SR 102	SR 103	SR 104	SR 105	SR 106	SR 109	SR 110	SR 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)	$I_{FSM}$	30								A
Maximum Instantaneous Forward Voltage (Note 1) @ 1 A	$V_F$	0.55		0.70		0.85		0.95		V
Maximum Reverse Current @ Rated VR @ $T_A=25\text{ }^\circ\text{C}$ @ $T_A=100\text{ }^\circ\text{C}$ @ $T_A=125\text{ }^\circ\text{C}$	$I_R$	0.5				0.1				mA
		10		5		-				
		-				2				
Typical Junction Capacitance (Note 2)	$C_j$	80		65		28				pF
Typical Thermal Resistance	$R_{\theta JA}$	90								$^\circ\text{C/W}$
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=300u sec, 1% Duty cycle

Note2: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

RATINGS AND CHARACTERISTIC CURVES (SR102 THRU SR115)

FIG.1- FORWARD CURRENT DERATING CURVE

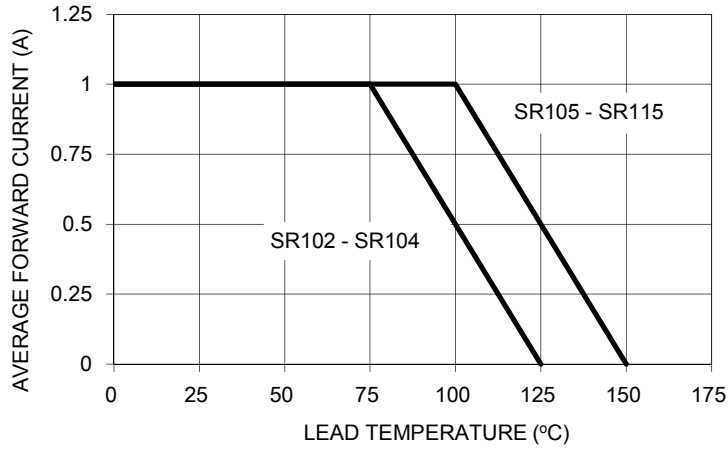


FIG. 2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

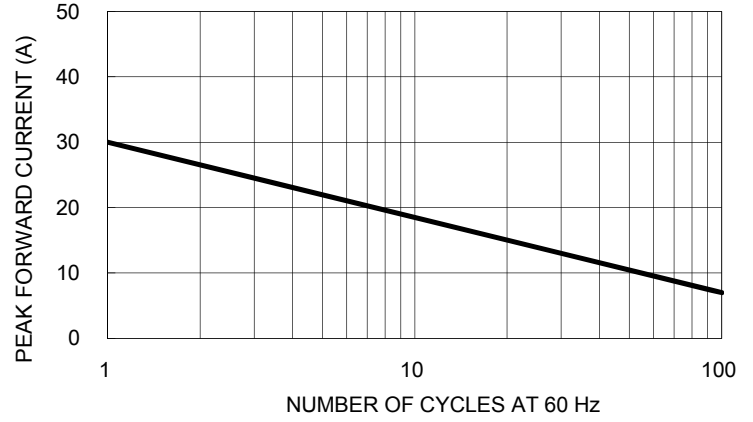


FIG. 3- TYPICAL FORWARD CHARACTERISTICS

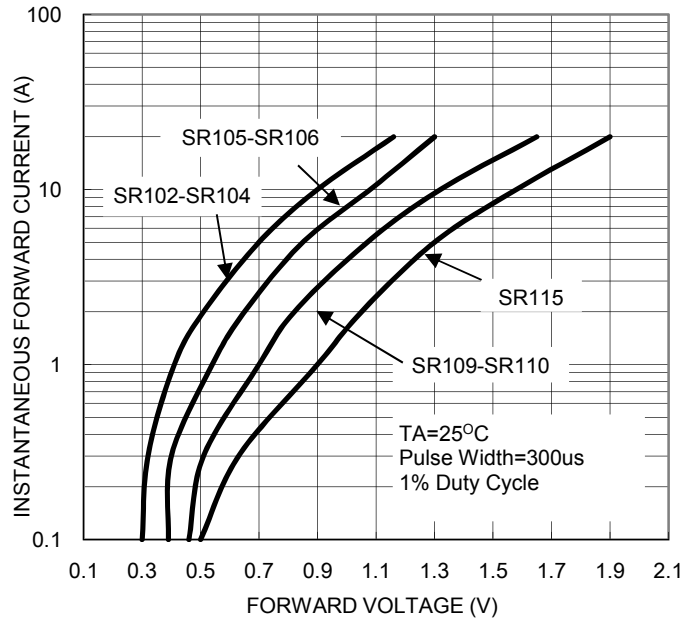


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

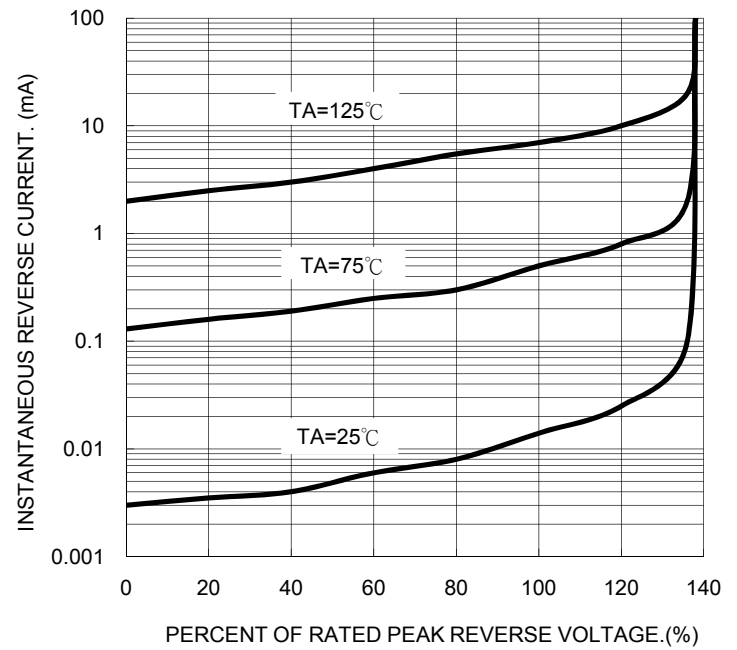


FIG. 5 TYPICAL JUNCTION CAPACITANCE

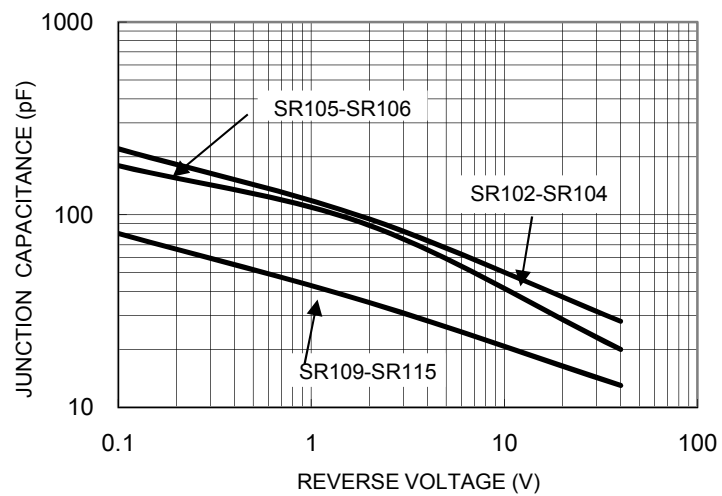
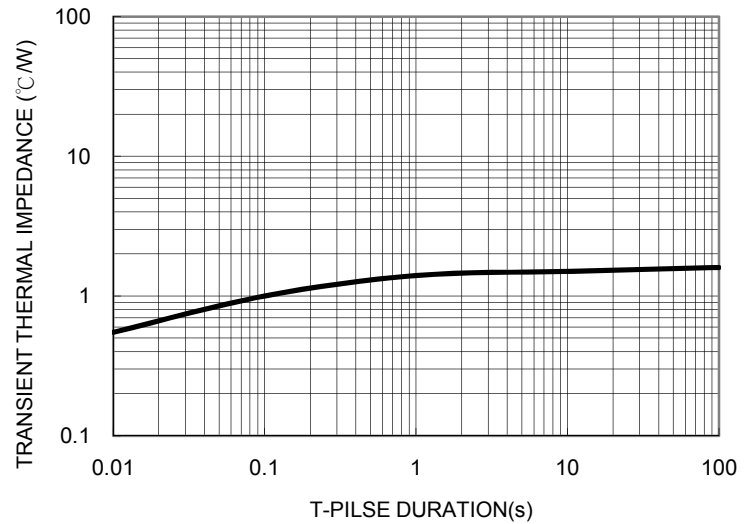


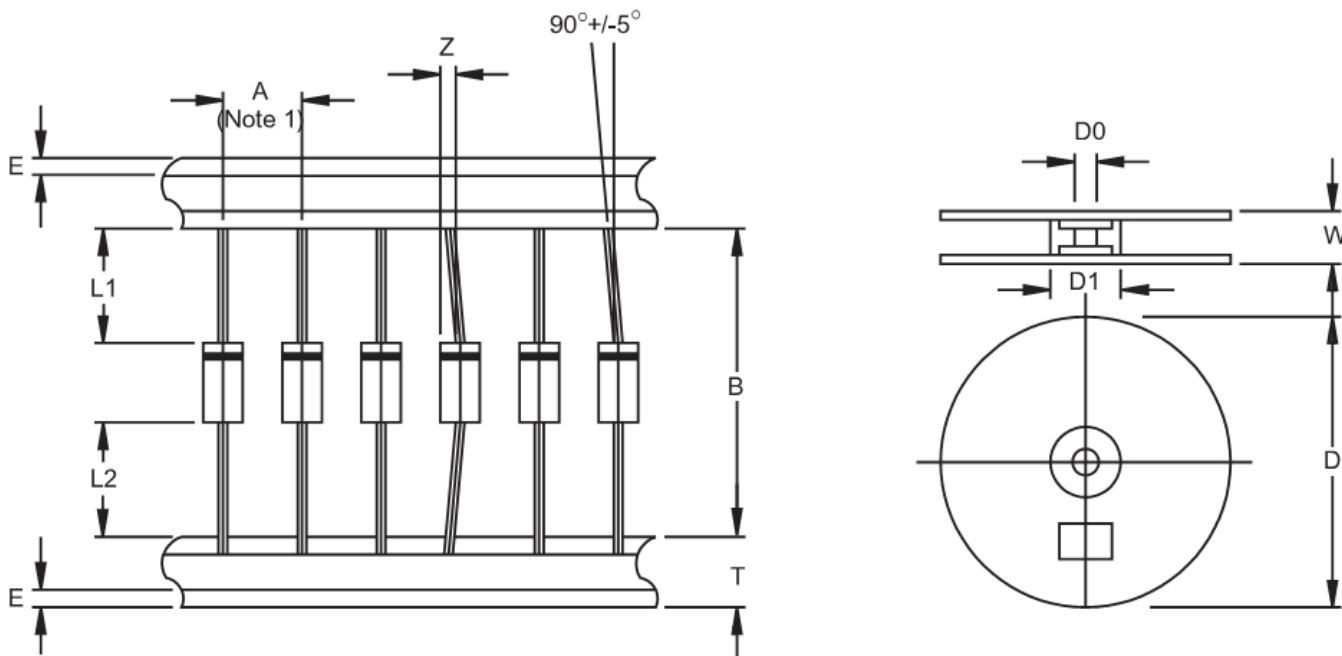
FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE



**Ordering information**

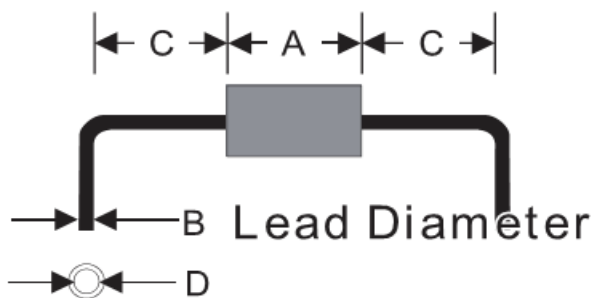
Part No.	Package	Packing	INNER TAPE	Packing code	Green Compound Packing code
SR10x	DO-41	3K / AMMO box	52mm	A0	A0G
	DO-41	5K / 13" Reel	52mm	R0	R0G
	DO-41	5K / 13" Reel	52mm	R1	R1G
	DO-41	1K / Bulk packing		B0	B0G
	DO-41	1K / Bulk packing		X0	X0G

Note: "xx" is Device Code from "02" thru "15".

**AXIAL LEAD TAPING SPECIFICATIONS**


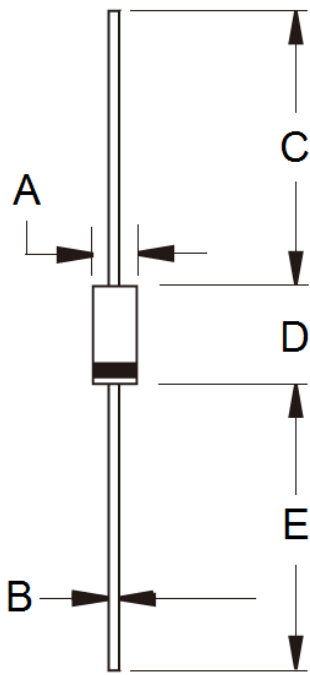
Outline	A	B	Z	T	E	L1-L2	D	D1	D0	W
	±0.5	±1.5	MAX	±0.4	MAX	MAX		±0.3	±0.4	±1.0
DO-41	5	52.4	1.2	6	0.8	1	330	85.7	16.6	76

Unit (mm)

**Suggested Mounting Hole Rule**


Symbol	Unit(mm)
A	5.1
B	0.8
C	3.0
D	1.2

**Dimensions**



DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	2.00	2.70	0.079	0.106
B	0.71	0.86	0.028	0.034
C	25.40	-	1.000	-
D	4.20	5.20	0.165	0.205
E	25.40	-	1.000	-

**Marking Diagram**



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