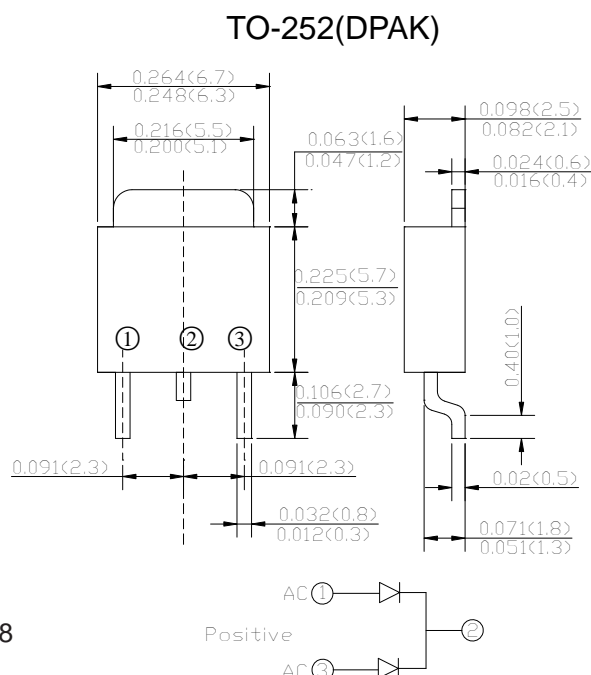


### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier Conduction Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability, Low forward voltage drop
- Single rectifier construction
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260 C/10 seconds,0.25"(6.35mm)from case
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

### Mechanical Data

- Case: JEDEC TO-252molded plastic body
- Terminals: Lead solder able per MIL-STD-202,method 208
- Polarity: As marked.
- Mounting Position: Any
- Weight: 0.014ounce,0.4 grams



### Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60HZ, resistive or inductive load. For capacitive load, derate current by 20%.

	Symbols	SD 1020 CT	SD 1030 CT	SD 1040 CT	SD 1050 CT	SD 1060 CT	SD 1080 CT	SD 10100 CT	SD 10150 CT	SD 10200 CT	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	100	150	200	Volts
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	57	71	105	140	Volts
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	100	150	200	Volts
Maximum average forward rectified current see Fig.1	$I_{(AV)}$	10.0									Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	150									Amp
Maximum instantaneous forward voltage at 5.0 A(Note 1)	$V_F$	0.60		0.75		0.85		0.90		0.95	Volts
Maximum Reverse Current $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A=125^\circ\text{C}$	$I_R$	0.5									mA
		15			50						
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	2.5									°C/W
Operating Temperature Range	$T_J$	-65 to +150									°C
Storage Temperature Range	$T_{STG}$	-65 to +150									

### NOTES:

1. Pulse test: 300  $\mu$ s pulse width, 1% duty cycle
2. Thermal resistance from junction to case

### RATINGS AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

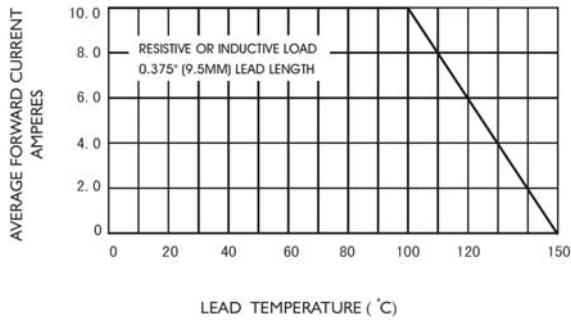


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

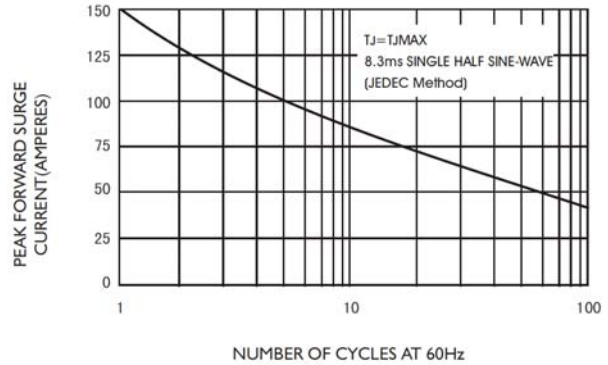


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

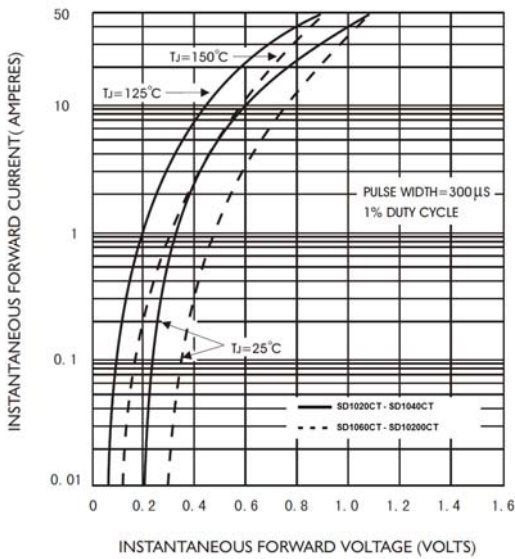


FIG.4-TYPICAL REVERSE CHARACTERISTICS

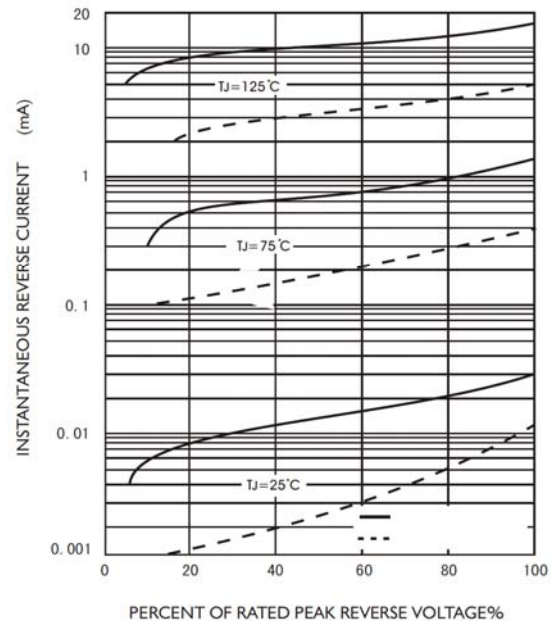


FIG.5-TYPICAL JUNCTION CAPACITANCE

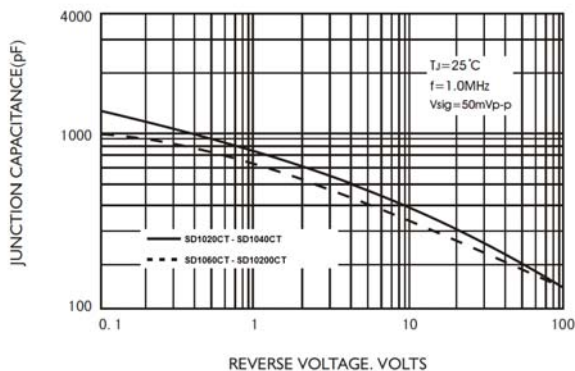


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

