



# SD1020CT SERIES

## SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE** 20 to 60 Volts **CURRENT** 10 Amperes

**TO-251AB / DPAK**

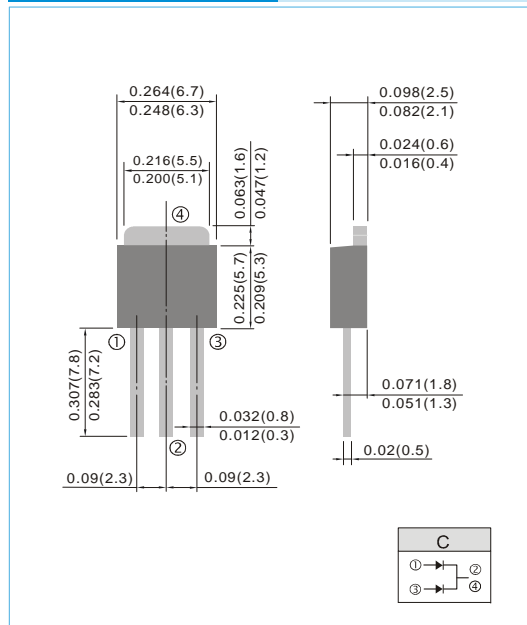
Unit : inch(mm)

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Low power loss, High efficiency
- High surge capacity
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

- Case: TO-251AB molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marking
- Weight: 0.0104 ounces, 0.297 grams.



### MAXIMUM RATINGS AND DELECTRICAL CHARACTERISTICS

Ratings 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%

PARAMETER	SYMBOL	SD1020CT	SD1030CT	SD1040CT	SD1050CT	SD1060CT	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	V
Maximum Average Forward Rectified Current at $T_C=75^\circ\text{C}$	$I_{F(AV)}$	10.0					A
Peak Forward Surge Current : 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	100					A
Maximum Instantaneous Forward Voltage at 5.0A per leg	$V_F$	0.55			0.75		V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=25^\circ\text{C}$ $T_J=100^\circ\text{C}$	$I_R$	0.2			20		mA
Typical Thermal Resistance	$R_{\theta JC}$ $R_{\theta JA}$	5.0			80		$^\circ\text{C} / \text{W}$
Operating Junction Temperature Range	$T_J$	-55 to +125		-55 to +150			$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150					$^\circ\text{C}$

NOTE:

Both Bonding and Chip structure are available.



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## RATING AND CHARACTERISTIC CURVES

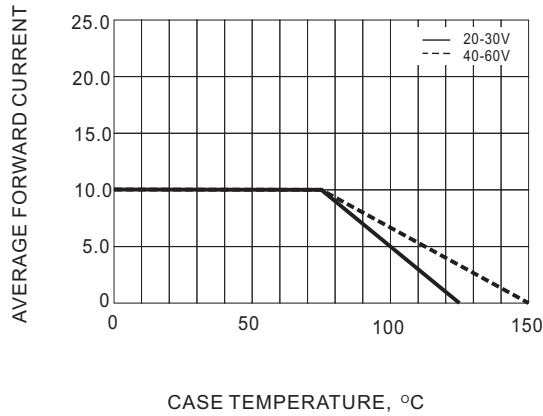


Fig.1- FORWARD CURRENT DERATING CURVE

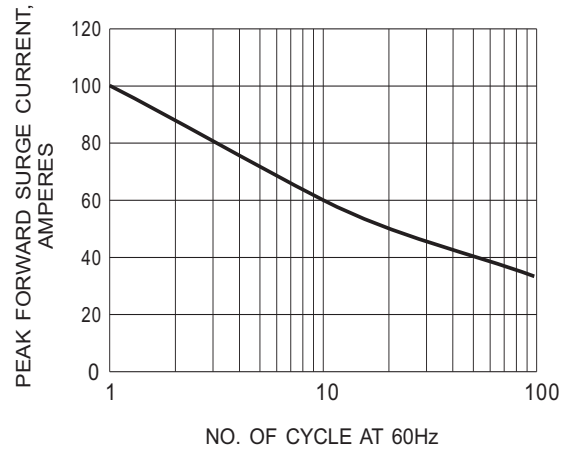


Fig.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

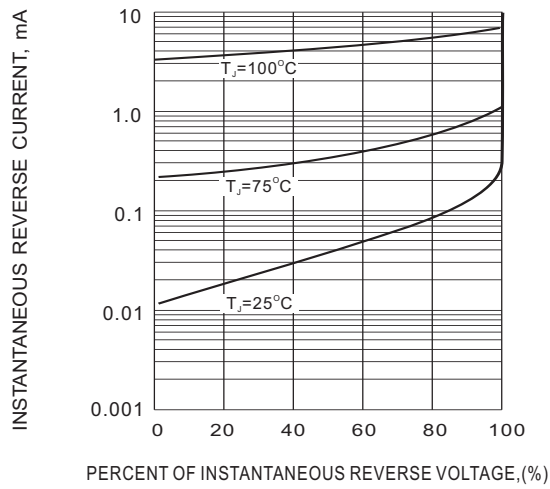


Fig.3- TYPICAL REVERSE CHARACTERISTIC

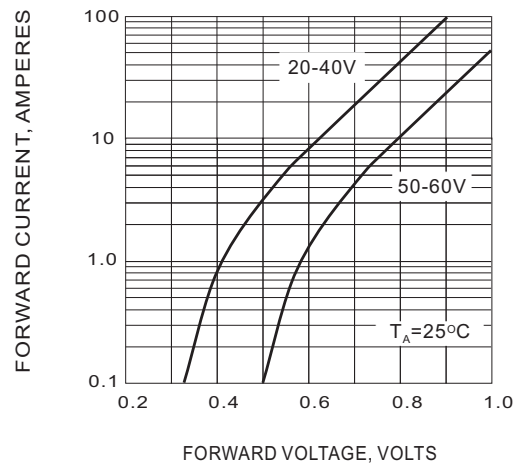


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC