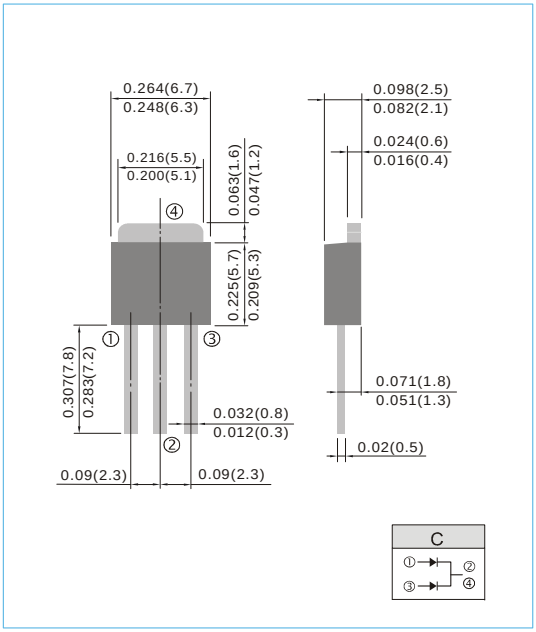
SD1020CT SERIES

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°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°C T_J=100°C	I_R	0.2 20					mA
Typical Thermal Resistance	$R_{\theta JC}$ $R_{\theta JA}$	5.0 80					°C / W
Operating Junction Temperature Range	T_J	-55 to +125		-55 to +150			°C
Storage Temperature Range	T_{STG}	-55 to +150					°C

NOTE:

Both Bonding and Chip structure are available.

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RATING AND CHARACTERISTIC CURVES

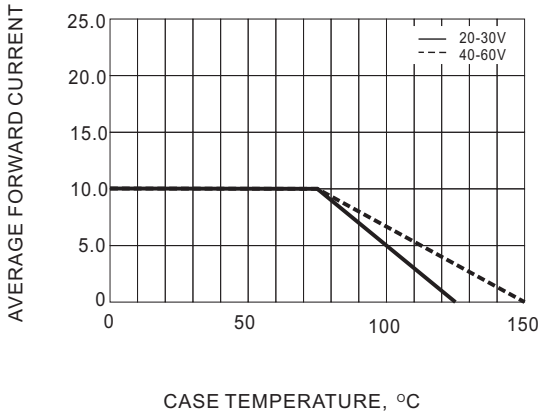

Fig.1- FORWARD CURRENT DERATING CURVE

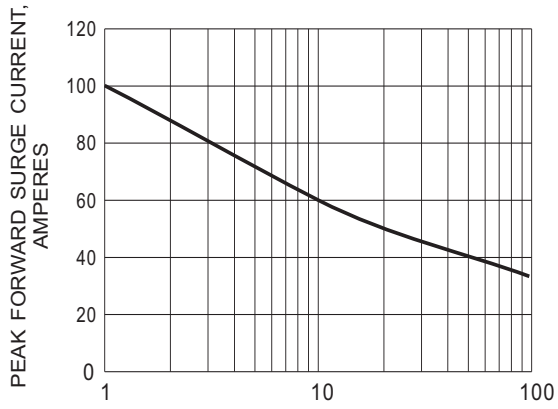

Fig.2- MAXIMUM NON-REPETITIVEP EAK FORWARD SURGE CURRENT

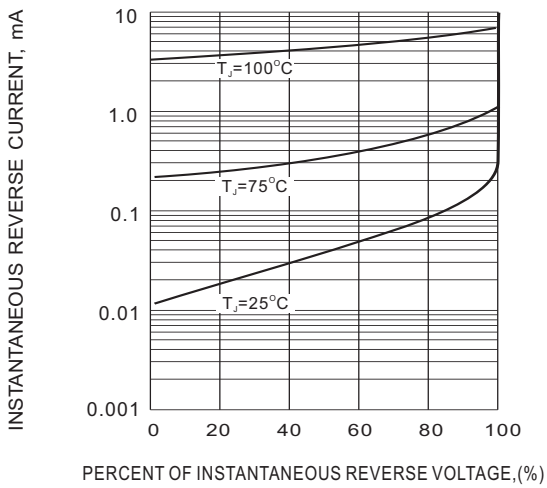

Fig.3- TYPICAL REVERSE CHARACTERISTIC

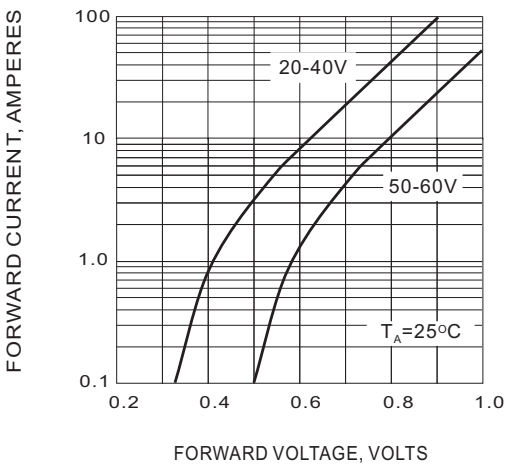

Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC