

SD620CT Thru SD6100CT

SCHOTTKY BARRIER RECTIFIER
VOLTAGE - 20 to 100 Volts CURRENT - 6.0 Amperes

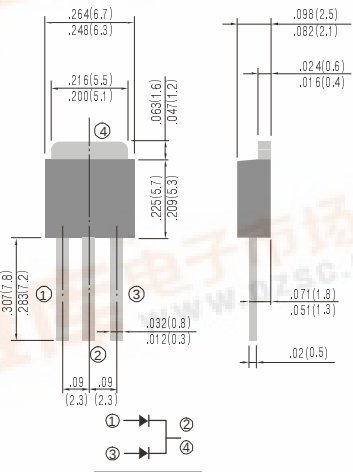
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For thorough hole applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier majority carrier conduction
- Low power loss, High efficiency
- High current capability, low V_F
- High surge capacity
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed:260°C/10 seconds at terminals

MECHANICAL DATA

Case: TO-251AB molded plastic
Terminals: Solder plated, solderable per MIL-STD-750,Method 2026
Polarity: Color band denotes cathode
Weight: 0.015 ounce, 0.4 gram.

TO-251AB



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Resistive or inductive load.

	SYMBOLS	SD620CT	SD630CT	SD640CT	SD650CT	SD660CT	SD680CT	SD6100CT	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	Volts
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	70	Volts
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	Volts
Maximum Average Forward Rectified Current at $T_c=75^{\circ}C$	I_{AV}	6.0	6.0	6.0	6.0	6.0	6.0	6.0	Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	75	75	75	75	75	75	75	Amps
Maximum Instantaneous Forward Voltage at 3.0A (Note 1)	V_F	0.55	0.55	0.55	0.70	0.70	0.85	0.85	Volts
Maximum DC Reverse Current (Note 1) $T_A=25^{\circ}C$ at Rated DC Blocking Voltage $T_A=100^{\circ}C$	I_R	0.2 20	0.2 20	0.2 20	0.2 20	0.2 20	0.2 20	0.2 20	mA
Maximum Thermal Resistance (Note 2)	$R_{\theta JC}$ $R_{\theta JA}$	6 80	6 80	6 80	6 80	6 80	6 80	6 80	$^{\circ}C / W$
Operating Junction Temperature Range	T_J	-55 to +125							$^{\circ}C$
Storage Temperature Range	T_{STG}	-65 to +150							$^{\circ}C$

NOTES

1. Pulse test with $PW=300\mu sec$, 2% Duty Cycle.
2. Mounted on P.C. Board with 14mm² (.013mm thick) copper pad areas.



RATING AND CHARACTERISTIC CURVES

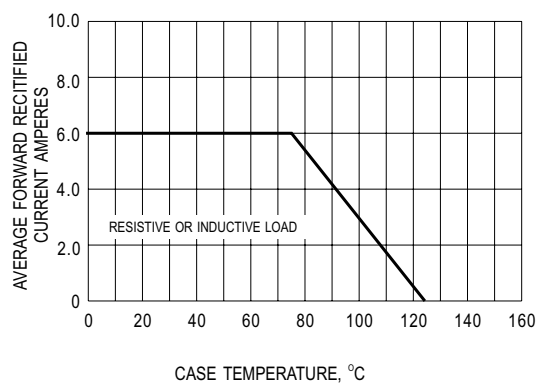


Fig.1- FORWARD CURRENT DERATING CURVE

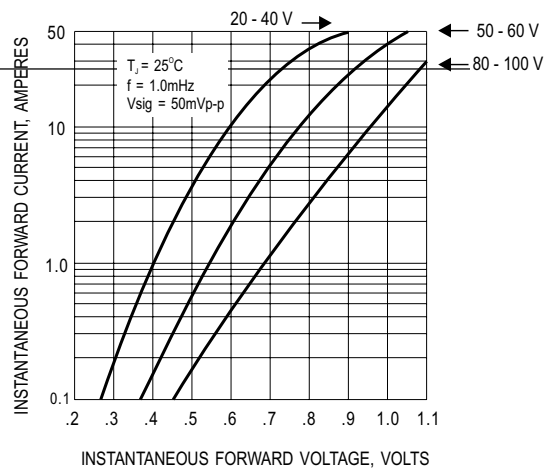


Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

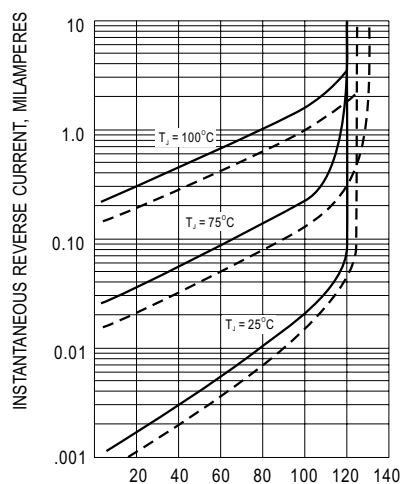


Fig.3- TYPICAL REVERSE CHARACTERISTIC

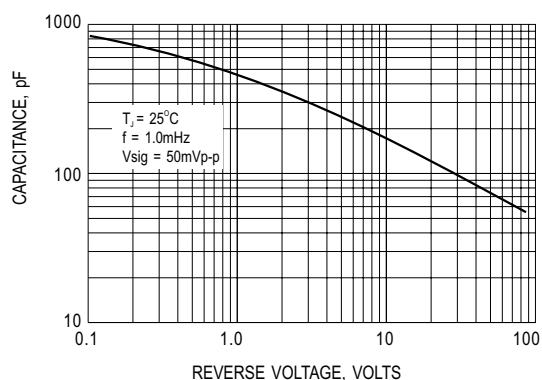


Fig.4- TYPICAL JUNCTION CAPACITANCE

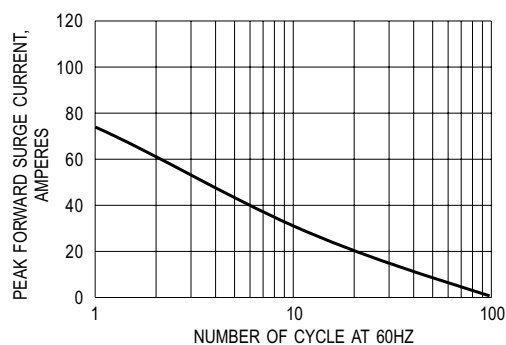


Fig.5- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT