



# SD820CT~SD8150CT

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

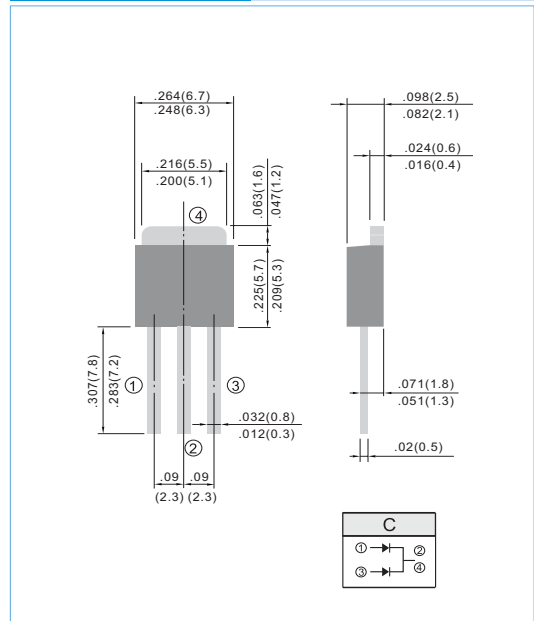
**VOLTAGE** 20 to 150 Volts **CURRENT** 8 Amperes **TO-251AB** Unit : inch (mm)

### 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
- Pb free product are available : 99% Sn above can meet Rohs environment substance directive request

### MECHANICAL DATA

Case: D PAK/TO-251AB molded plastic  
 Terminals: Solder plated, solderable per MIL-STD-202G, Method 208  
 Polarity: As marking  
 Standard packaging: 16mm tape (EIA-481)  
 Weight: 0.015 ounces, 0.4grams.



### MAXIMUM RATINGS AND ELECTRICAL 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%

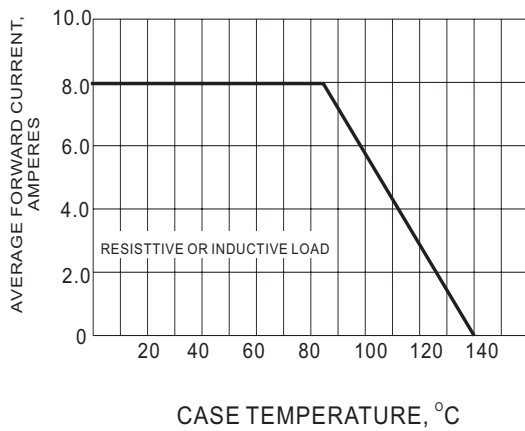
PARAMETER	SYMBOL	SD820CT	SD830CT	SD840CT	SD850CT	SD860CT	SD880CT	SD8100CT	SD8150CT	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	100	150	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	56	70	105	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	100	150	V
Maximum Average Forward Current .375"(9.5mm) lead length at $T_c = 85^\circ C$	$I_{AV}$	8								A
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	85								A
Maximum Forward Voltage at 4.0A (Note 1)	$V_F$	0.55			0.75		0.85		0.92	V
Maximum DC Reverse Current $T_c=25^\circ C$ at Rated DC Blocking Voltage $T_c=100^\circ C$	$I_R$					0.2				mA
Typical Thermal Resistance	$R_{\theta JC}$					80				$^\circ C / W$
Operating Junction Temperature Rang	$T_J$					-50 to +125				$^\circ C$
Storage Temperature Rang	$T_J, T_{STG}$					-50 to +150				$^\circ C$

Notes :

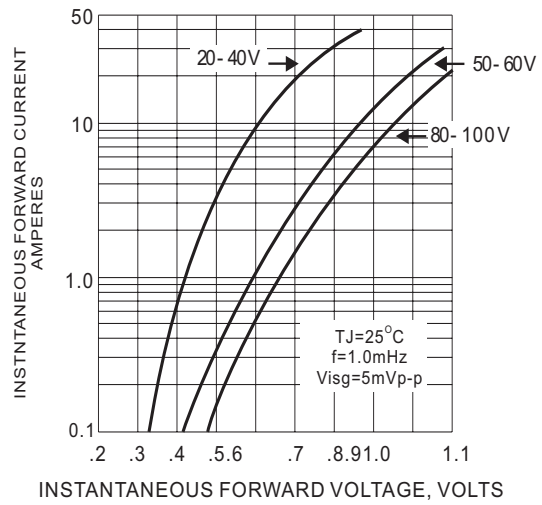
1. Thermal Resistance Junction to Ambient.



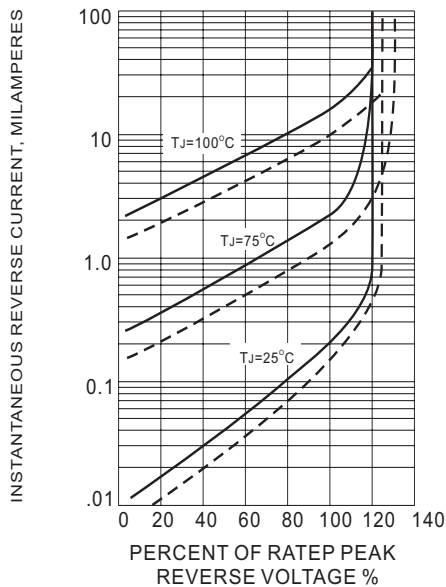
**RATING AND CHARACTERISTIC CURVES**



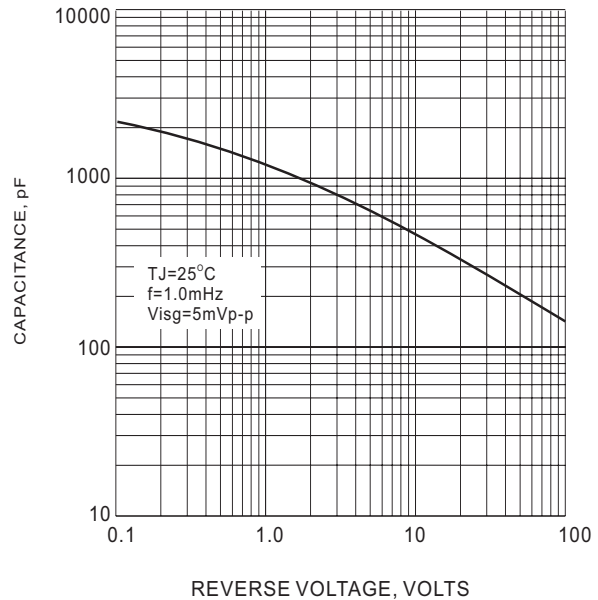
**Fig.1- FORWARD CURRENT DERATING CURVE**



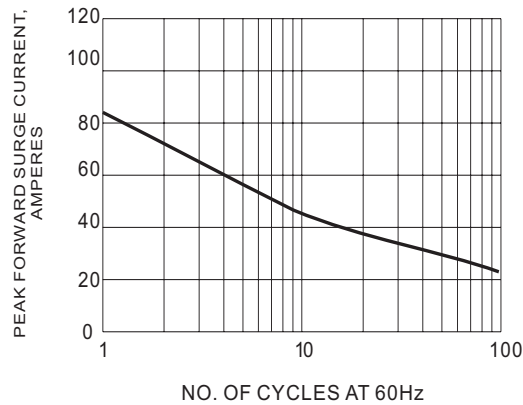
**Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC**



**Fig.3- TYPICAL REVERSE CHARACTERISTICS**



**Fig.4- TYPICAL JUNCTION CAPACITANCE**



**Fig.5- MAXIMUM NON-REPETITIVE SURGE CURRENT**