



# SD820S SERIES

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

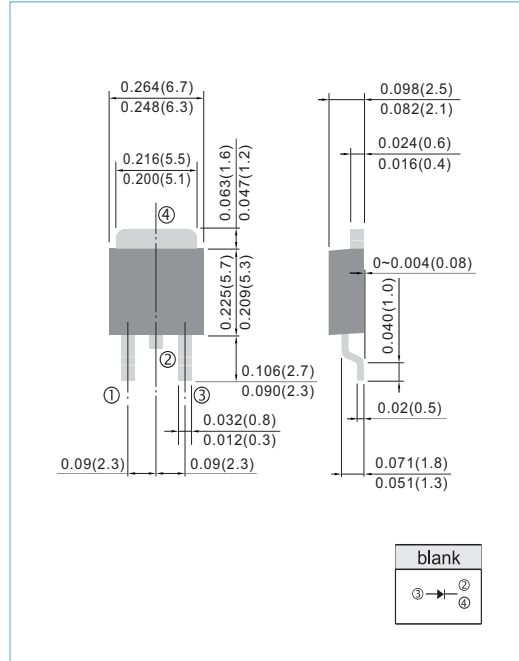
**VOLTAGE** 20 to 60 Volts **CURRENT** 8 Amperes **TO-252 / DPAK** Unit : inch(mm)

### 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: DPAK/TO-252 molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marking
- Standard packaging: 16mm tape (EIA-481)
- Weight: 0.0104 ounces, 0.297 grams.



## 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	SD820S	SD830S	SD840S	SD850S	SD860S	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 Current at $T_c = 75^\circ\text{C}$	$I_{F(AV)}$	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 8.0A	$V_F$	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					$^\circ\text{C}$



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## RATING AND CHARACTERISTIC CURVES

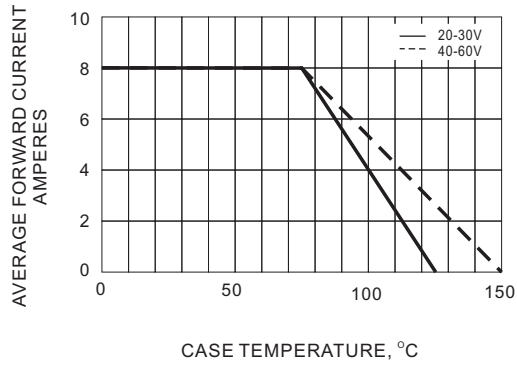


Fig. 1-FORWARD CURRENT DERATING CURVE

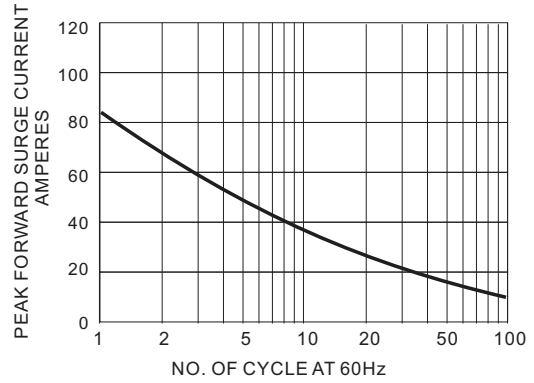


Fig. 2-MAXIMUM NON-REPETITIVE SURGE CURRENT

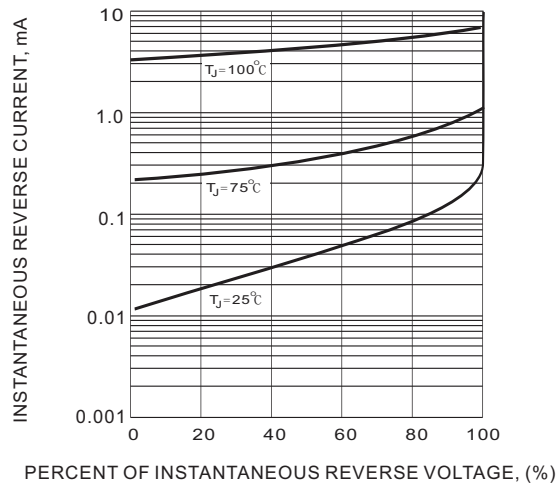


Fig. 3-TYPICAL REVERSE CHARACTERISTIC

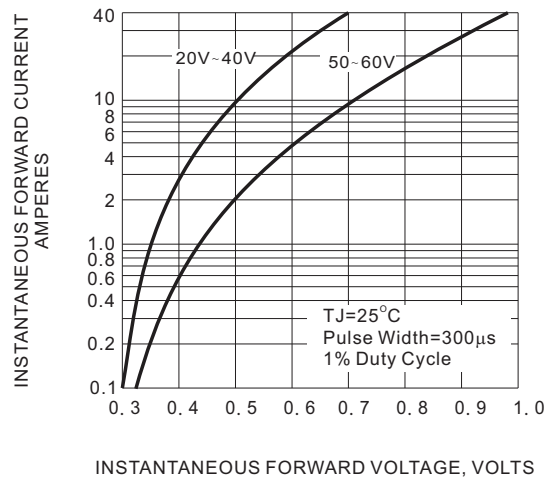
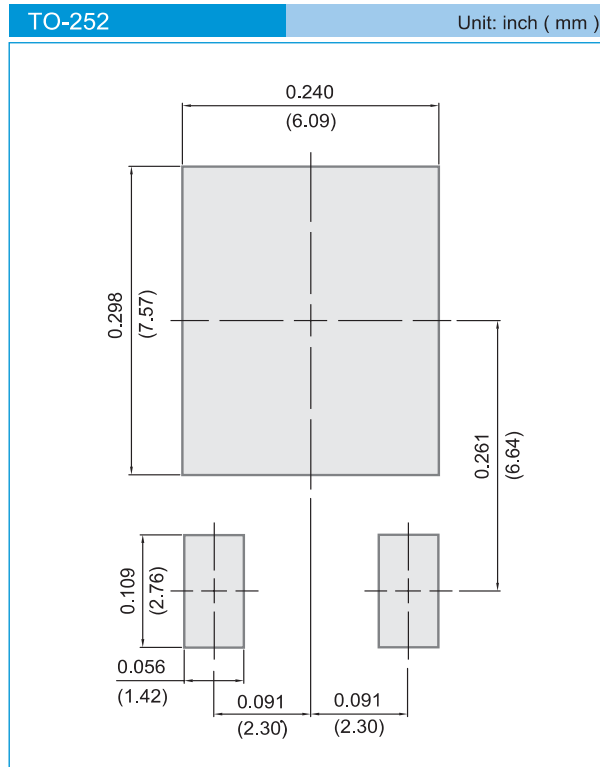


Fig. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC



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## MOUNTING PAD LAYOUT



### ORDER INFORMATION

- Packing information  
T/R - 3K per 13" plastic Reel

### LEGAL STATEMENT

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