



# SD620CS~SD660CS

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE** 20 to 60 Volts **CURRENT** 6.0 Amperes

TO-252

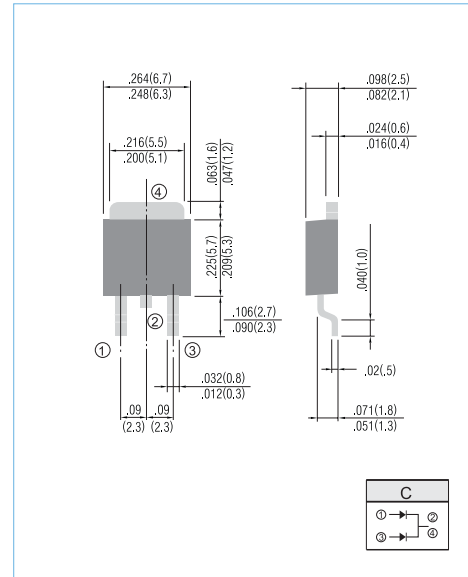
Unit: inch ( mm )

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- 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
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

- Case: D PAK/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%

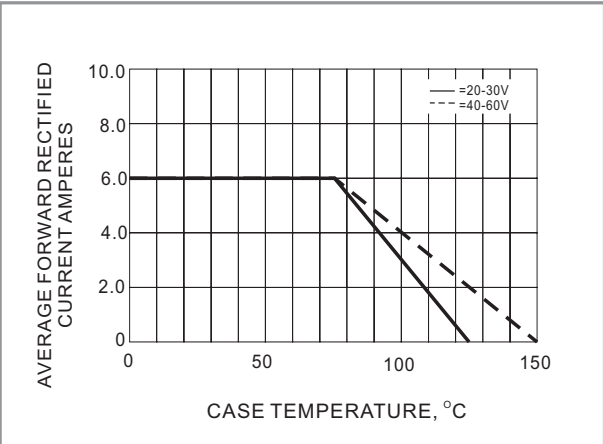
PARAMETER	SYMBOL	SD620CS	SD630CS	SD640CS	SD650CS	SD660CS	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	V
Maximum RMS Voltage	$V_{RSM}$	14	21	28	35	42	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	V
Maximum Average Forward Current at $T_c = 75^\circ\text{C}$	$I_{F(AV)}$	6.0					A
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	75					A
Maximum Forward Voltage at 3.0A per leg	$V_F$	0.55			0.7		V
Maximum DC Reverse Current $T_j=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_j=100^\circ\text{C}$	$I_R$	0.2 20			0.1 20		mA
Typical Thermal Resistance	$R_{\theta JC}$	5					$^\circ\text{C} / \text{W}$
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.

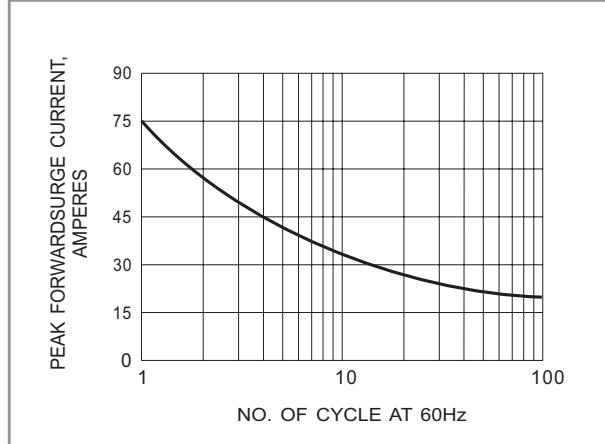


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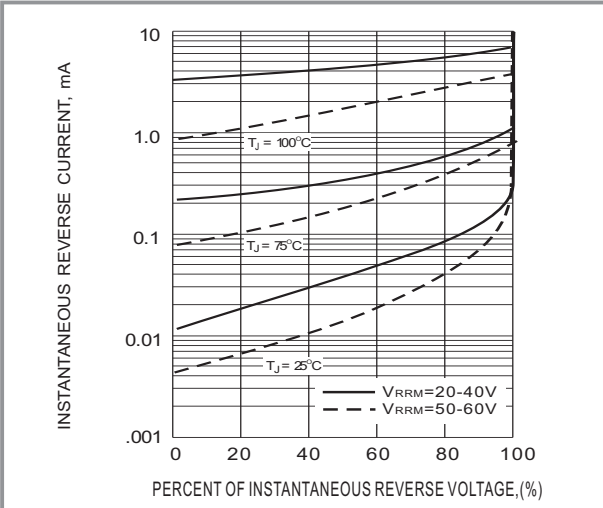
## RATING AND CHARACTERISTIC CURVES



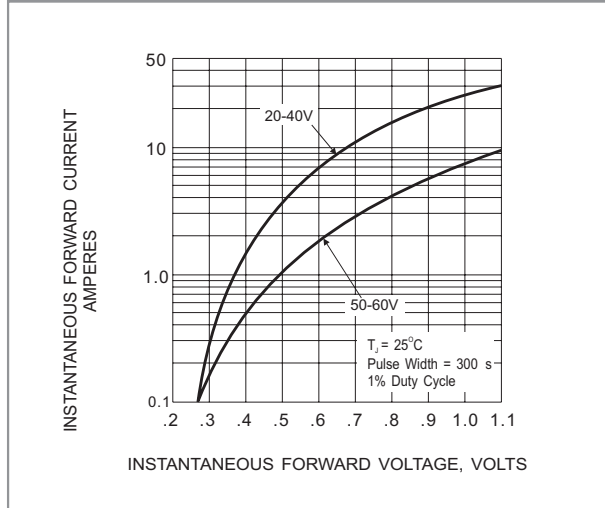
**Fig.1- FORWARD CURRENT DERATING CURVE**



**Fig.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



**Fig.3- TYPICAL REVERSE CHARACTERISTICS**

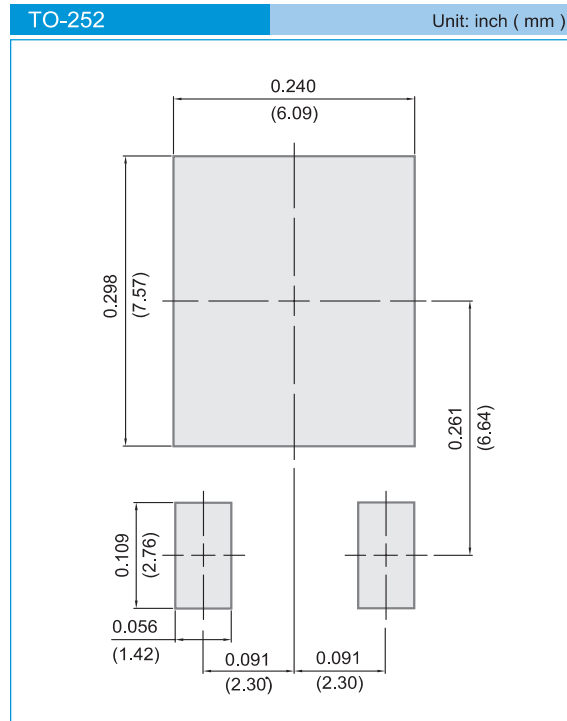


**Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC**



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## MOUNTING PAD LAYOUT



### ORDER INFORMATION

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

### LEGAL STATEMENT

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