



# SD820YS~SD860YS

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

**Voltage**

**20~60 V**

**Current**

**8 A**

**TO-252**

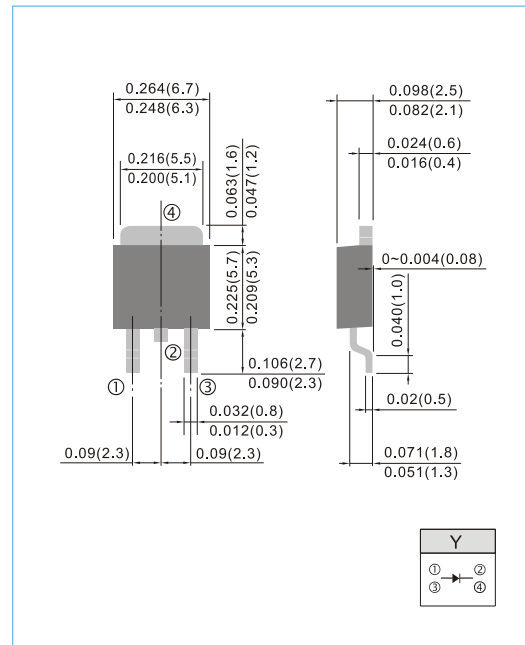
Unit : inch(mm)

### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O.
- For surface mounted applications in order to optimize board space
- Low power loss, High efficiency
- High surge capacity
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications
- Lead free in compliance with EU RoHS 2011/65/EU directive.
- Green molding compound as per IEC61249 Std..(Halogen Free)

### Mechanical Data

- Case: TO-252 Molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marking
- Standard packaging: 16mm tape (EIA-481)
- Approx. Weight: 0.0104 ounces, 0.297 grams
- Marking: Part number



### Maximum Ratings ( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	SD820YS	SD830YS	SD840YS	SD850YS	SD860YS	UNIT
Maximum repetitive 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	$V_R$	20	30	40	50	60	V
Maximum average forward rectified current	$I_{F(AV)}$	8					A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	85					A
Maximum forward voltage at 4A	$V_F$	0.55			0.75		V
Maximum dc reverse current	$I_R$	$T_J=25^{\circ}\text{C}$	0.2			0.1	mA
at rated dc blocking voltage		$T_J=100^{\circ}\text{C}$	20			20	
Typical thermal resistance	$R_{\theta JC}$	5					$^{\circ}\text{C/W}$
	$R_{\theta JA}$	80					
Operating junction temperature range	$T_J$	-55 to +125			-55 to +150		$^{\circ}\text{C}$
Storage temperature range	$T_{STG}$	-55 to +150					$^{\circ}\text{C}$



# SD820YS~SD860YS

## RATING AND CHARACTERISTIC CURVES

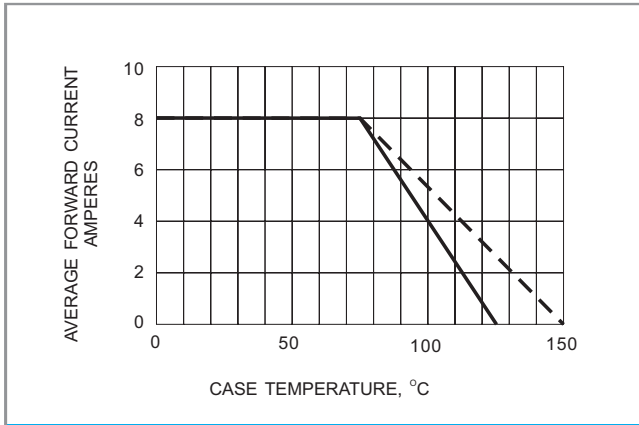


Fig.1- FORWARD CURRENT DERATING CURVE

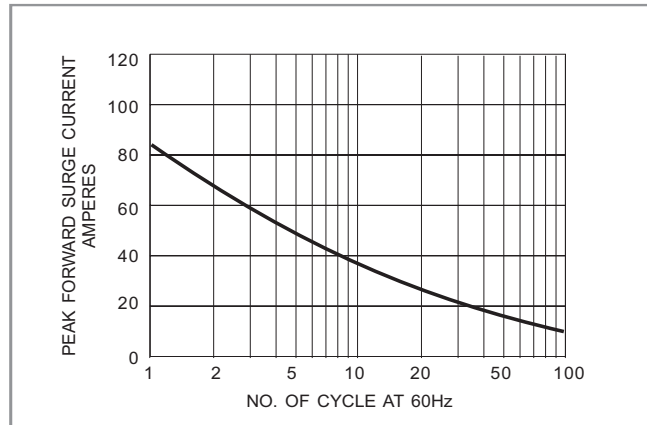


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

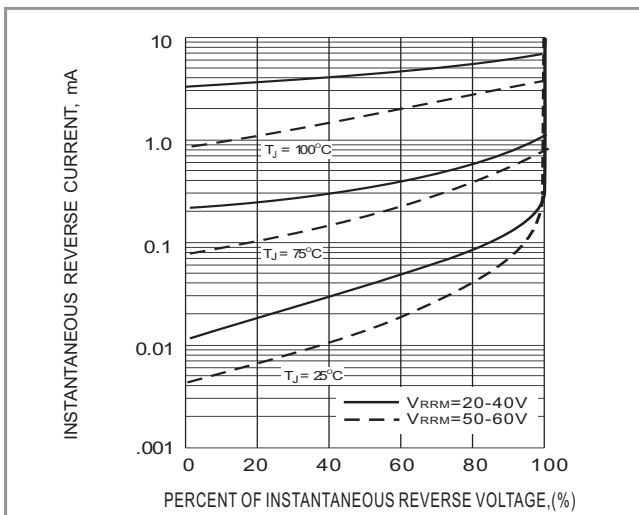


Fig.3- TYPICAL REVERSE CHARACTERISTICS

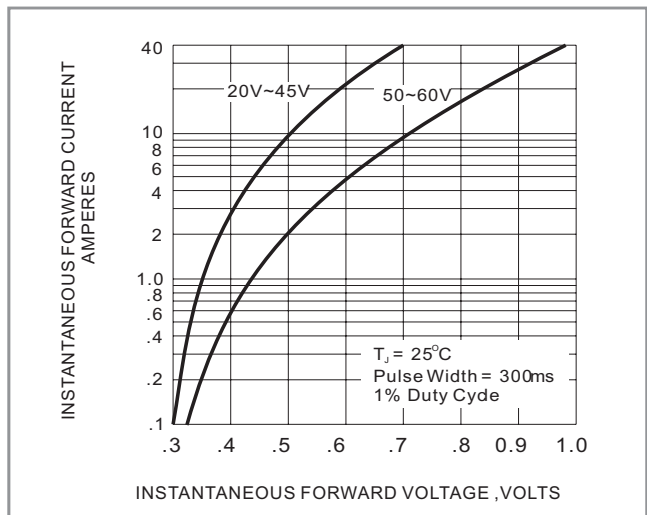
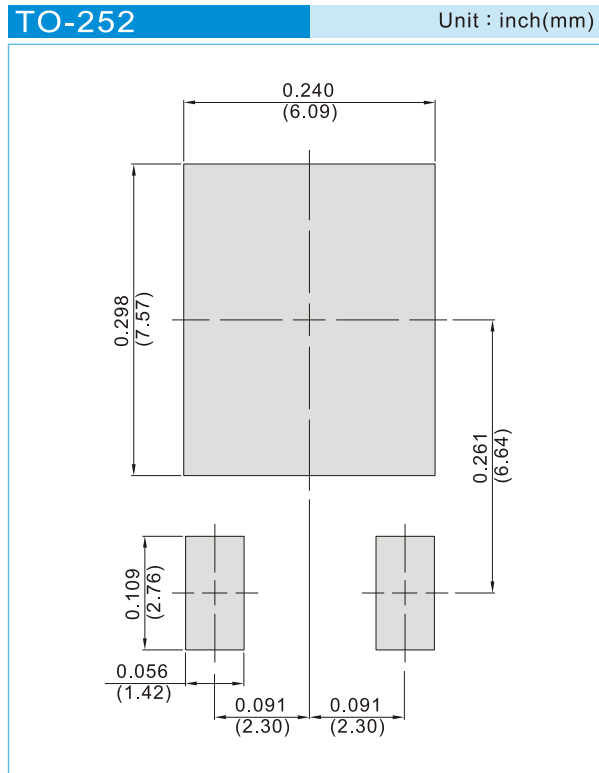


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



## SD820YS~SD860YS

### MOUNTING PAD LAYOUT



### ORDER INFORMATION

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



## SD820YS~SD860YS

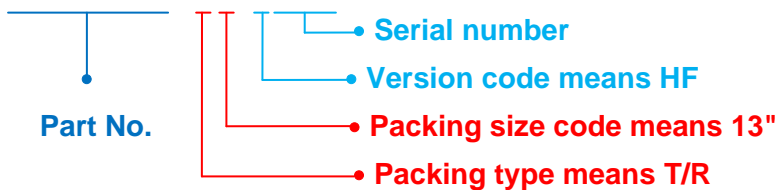
Part No\_packing code\_Version

SD820YS\_L2\_00001

SD820YS\_S2\_00001

For example :

RB500V-40\_R2\_00001



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



## **SD820YS~SD860YS**

### **Disclaimer**

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.