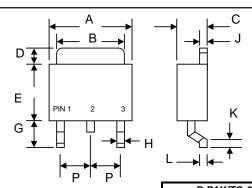
# **SD320S - SD3100S**

# 3.0A DPAK SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

## **Features**

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- High Current Capability
- Low Power Loss, High Efficiency
- High Surge Current Capability
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications



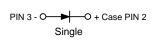
## **Mechanical Data**

Case: Molded Plastic

 Terminals: Plated Leads Solderable per MIL-STD-750, Method 2026

Polarity: Cathode Band
Weight: 0.4 grams (approx.)
Mounting Position: Any
Marking: Type Number

Standard Packaging: 16mm Tape (EIA-481)



D PAK/TO-252AA					
Dim	Min	Max			
Α	6.4 6.8				
В	5.0	5.4			
С	2.35	2.75			
D	_	1.60			
E	5.3	5.7			
G	2.3	2.7			
Н	0.4	0.8			
J	0.4	0.6			
K	0.3	0.7			
L	0.50 Typical				
Р	_	2.3			
All Dimensions in mm					

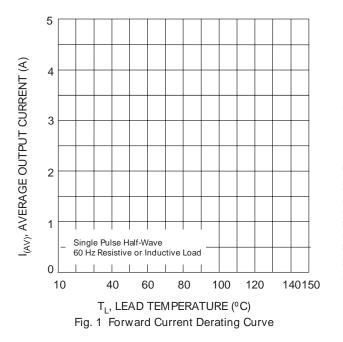
# Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

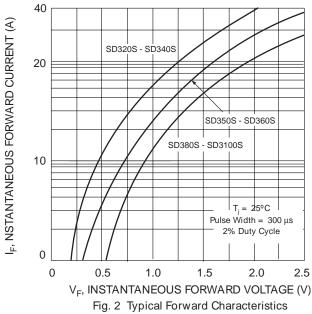
Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

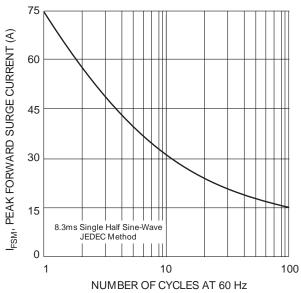
Characteristic		Symbol	SD 320S	SD 330S	SD 340S	SD 350S	SD 360S	SD 380S	SD 3100S	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		VRRM VRWM VR	20	30	40	50	60	80	100	V
RMS Reverse Voltage		VR(RMS)	14	21	28	35	42	56	70	٧
Average Rectified Output Current	@T <sub>L</sub> = 75°C	lo	3.0				Α			
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)		IFSM	75					А		
Forward Voltage (Note 1)	@I <sub>F</sub> = 3.0A	VFM	0.5 0.64 0.85				85	V		
Peak Reverse Current At Rated DC Blocking Voltage	@T <sub>A</sub> = 25°C @T <sub>A</sub> = 100°C	IRM	0.2 20				mA			
Typical Junction Capacitance (Note 2)		Cj	250						pF	
Typical Thermal Resistance Junction to Ambient		RθJA	80					K/W		
Operating Temperature Range		Tj	-50 to +125					°C		
Storage Temperature Range		Tstg	-50 to +150					°C		

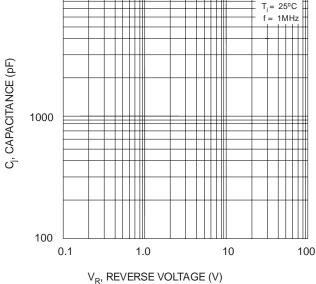
Note: 1. Mounted on P.C. Board with 14mm<sup>2</sup> (0.13mm thick) copper pad.

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.









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Fig. 3 Maximum Non-Repetitive Peak Fwd Surge Current

Fig. 4 Typical Junction Capacitance

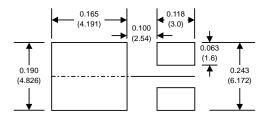
## ORDERING INFORMATION

Product No.◆	Package Type	Shipping Quantity
SD320S-T3	DPAK	2500/Tape & Reel
SD330S-T3	DPAK	2500/Tape & Reel
SD340S-T3	DPAK	2500/Tape & Reel
SD350S-T3	DPAK	2500/Tape & Reel
SD360S-T3	DPAK	2500/Tape & Reel
SD380S-T3	DPAK	2500/Tape & Reel
SD3100S-T3	DPAK	2500/Tape & Reel

<sup>◆</sup>T3 suffix refers to a 13" reel.

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

## RECOMMENDED FOOTPRINT



inches(mm)

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**WARNING**: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

Won-Top Electronics Co., Ltd.

No. 44 Yu Kang North 3rd Road, Chine Chen Dist., Kaohsiung, Taiwan

Phone: 886-7-822-5408 or 886-7-822-5410

Fax: 886-7-822-5417 Email: sales@wontop.com Internet: http://www.wontop.com

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