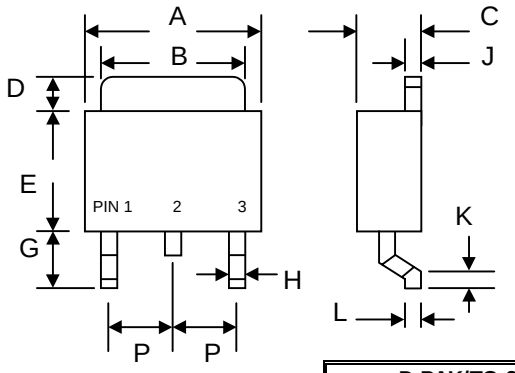
SD520YS – SD5100YS

5.0A DPAK SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

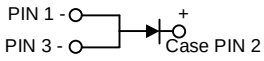
Features

- Schottky Barrier chip
- Guard Ring Die Construction
- Low Profile Package
- High Surge Current Capability
- Low Power Loss, High Efficiency
- Ideal for Printed Circuit Board
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling 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**
A	6.4	6.8
B	5.0	5.4
C	2.35	2.75
D	—	1.60
E	5.3	5.7
G	2.3	2.7
H	0.4	0.8
J	0.4	0.6
K	0.3	0.7
L	0.50 Typical	
P	—	2.3
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

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

Characteristic	Symbol	SD 520YS	SD 530YS	SD 540YS	SD 550YS	SD 560YS	SD 580YS	SD 5100YS	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	20	30	40	50	60	80	100	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	35	42	56	70	V
Average Rectified Output Current @T_L = 75°C	I_O	5.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	100							A
Forward Voltage (Note 1) @I_F = 5.0A	V_{FM}	0.55			0.75		0.85		V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 100°C	I_{RM}	0.2 20							mA
Typical Junction Capacitance (Note 2)	C_j	400							pF
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	50							K/W
Operating Temperature Range	T_j	-50 to +125							°C
Storage Temperature Range	T_{STG}	-50 to +150							°C

Note: 1. Mounted on P.C. Board with 14mm^2 (0.13mm thick) copper pad.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

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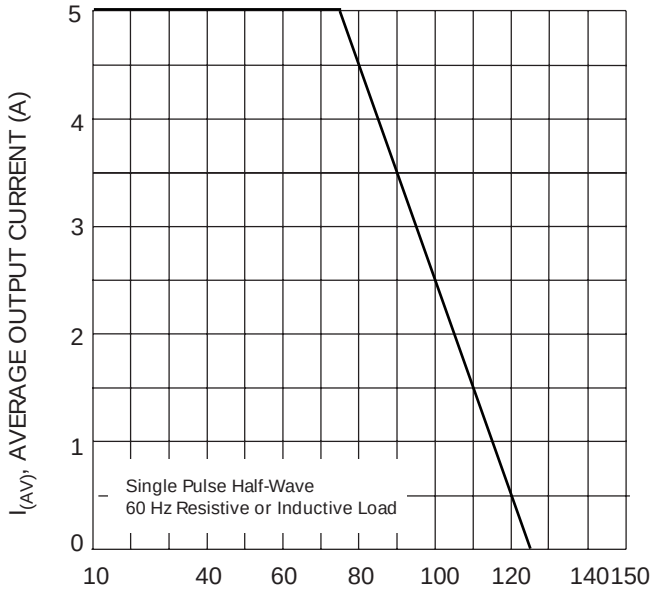


Fig. 1 Forward Current Derating Curve

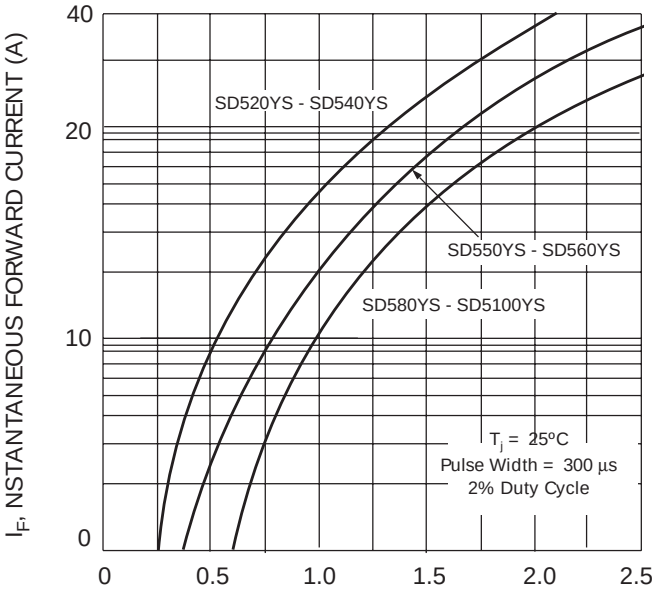


Fig. 2 Typical Forward Characteristics

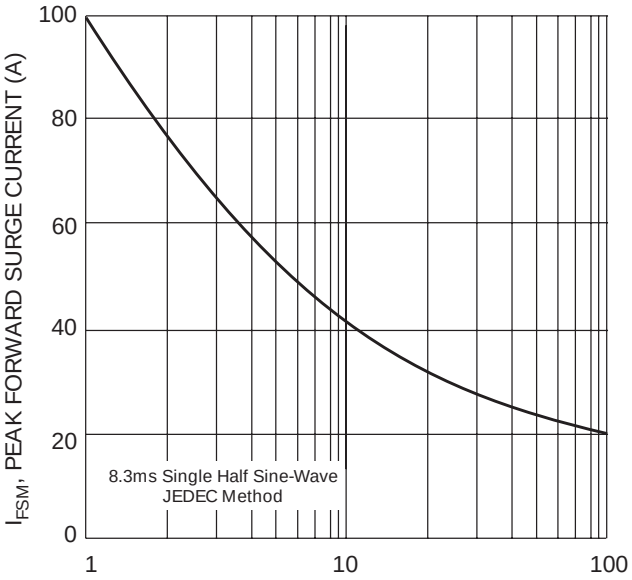


Fig. 3 Maximum Non-Repetitive Peak Fwd Surge Current

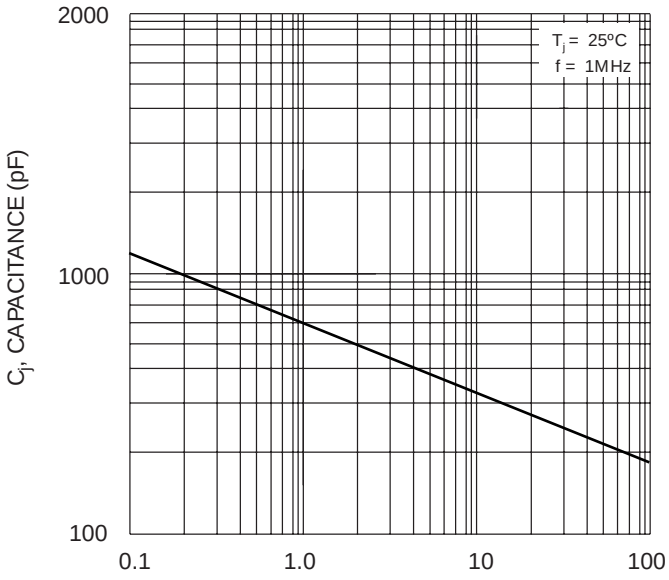


Fig. 4 Typical Junction Capacitance

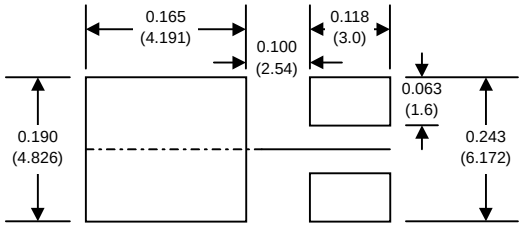
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ORDERING INFORMATION

Product No.◆	Package Type	Shipping Quantity
SD520YS-T3	DPAK	2500/Tape & Reel
SD530YS-T3	DPAK	2500/Tape & Reel
SD540YS-T3	DPAK	2500/Tape & Reel
SD550YS-T3	DPAK	2500/Tape & Reel
SD560YS-T3	DPAK	2500/Tape & Reel
SD580YS-T3	DPAK	2500/Tape & Reel
SD5100YS-T3	DPAK	2500/Tape & Reel

◆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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