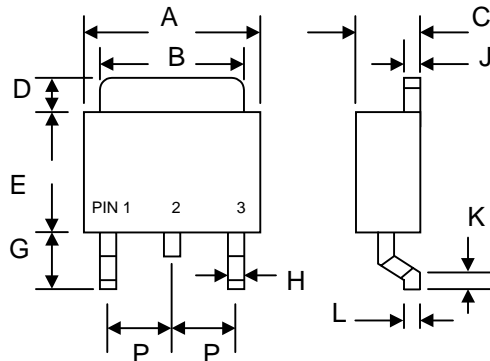


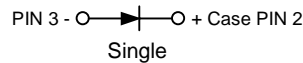
Features

- 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
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 820S	SD 830S	SD 840S	SD 850S	SD 860S	SD 880S	SD 8100S	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RRM} 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 = 85°C	I _O	8.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	85							A
Forward Voltage (Note 1) @I _F = 8.0A	V _{FM}	0.65		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 _{θJA}	60							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 14mm² (0.13mm thick) copper pad.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

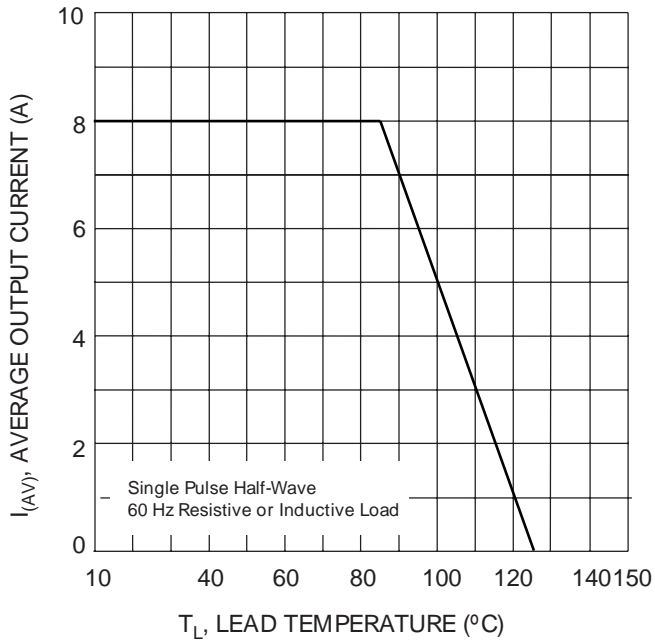


Fig. 1 Forward Current Derating Curve

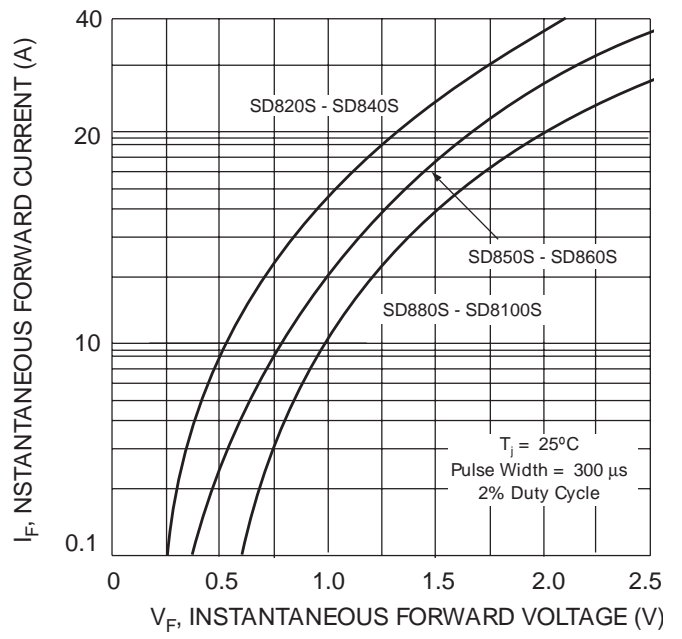


Fig. 2 Typical Forward Characteristics

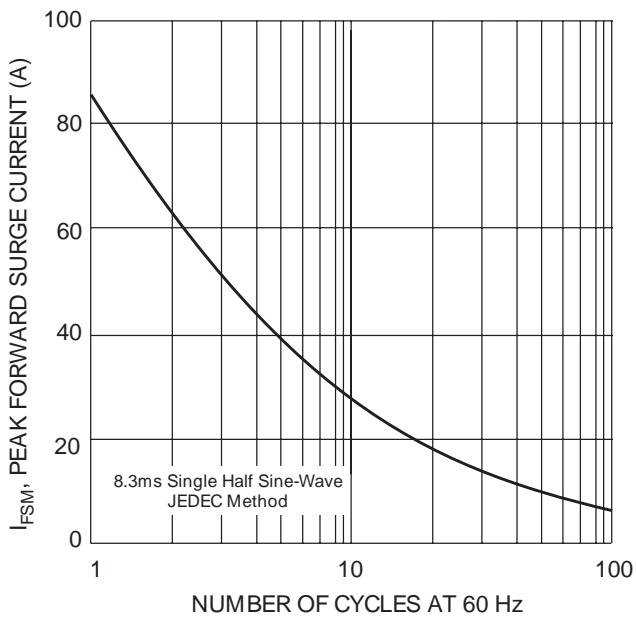


Fig. 3 Maximum Non-Repetitive Peak Fwd Surge Current

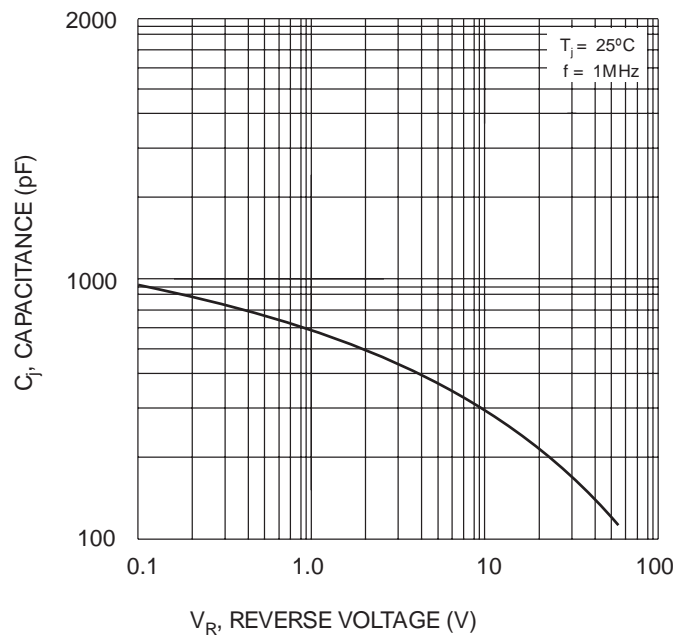


Fig. 4 Typical Junction Capacitance

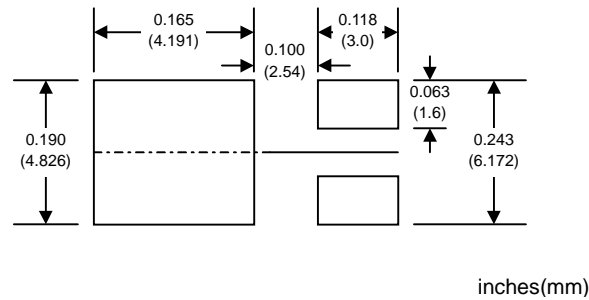
ORDERING INFORMATION

Product No.♦	Package Type	Shipping Quantity
SD820S-T3	DPAK	2500/Tape & Reel
SD830S-T3	DPAK	2500/Tape & Reel
SD840S-T3	DPAK	2500/Tape & Reel
SD850S-T3	DPAK	2500/Tape & Reel
SD860S-T3	DPAK	2500/Tape & Reel
SD880S-T3	DPAK	2500/Tape & Reel
SD8100S-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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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.

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