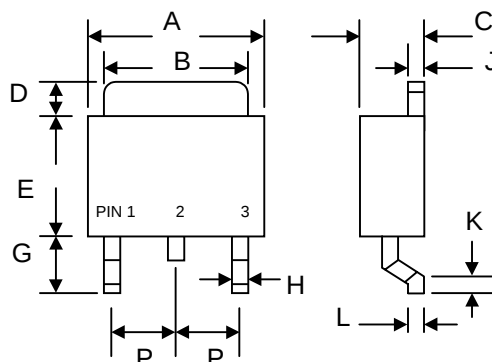


Features

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Profile Package
- High Surge Current Capability
- Low Power Loss, High Efficiency
- Super-Fast Recovery Time
- Plastic Case Material has UL Flammability Classification Rating 94V-O



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)

PIN 3 - ○ —|— ○ + Case PIN 2
Single

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	ED502S	ED503S	ED504S	ED506S	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	200	300	400	600	V
Working Peak Reverse Voltage	V _{RWM}					
DC Blocking Voltage	V _R					
RMS Reverse Voltage	V _{R(RMS)}	140	210	280	420	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}	75				A
Forward Voltage (Note 1) @I _F = 5.0A	V _{FM}	0.95	1.25	1.7		V
Peak Reverse Current @T _A = 25°C	I _{RM}	5.0				μA
At Rated DC Blocking Voltage @T _A = 100°C		200				
Typical Thermal Resistance Junction to Ambient	R _{θJA}	71				K/W
Reverse Recovery Time (Note 2)	t _{rr}	35				nS
Operating and Storage Temperature Range	T _J , T _{STG}	-50 to +150				°C

Note: 1. Mounted on P.C. Board with 14mm² (0.13mm thick) copper pad.

2. Measured with I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A.

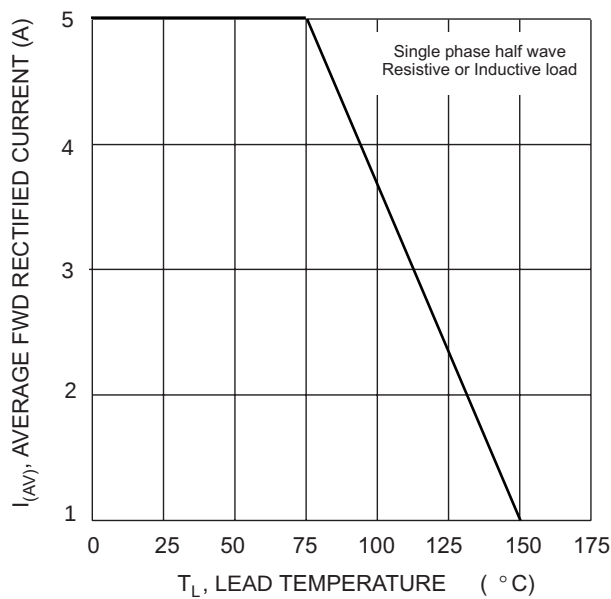


Fig. 1 Forward Current Derating Curve

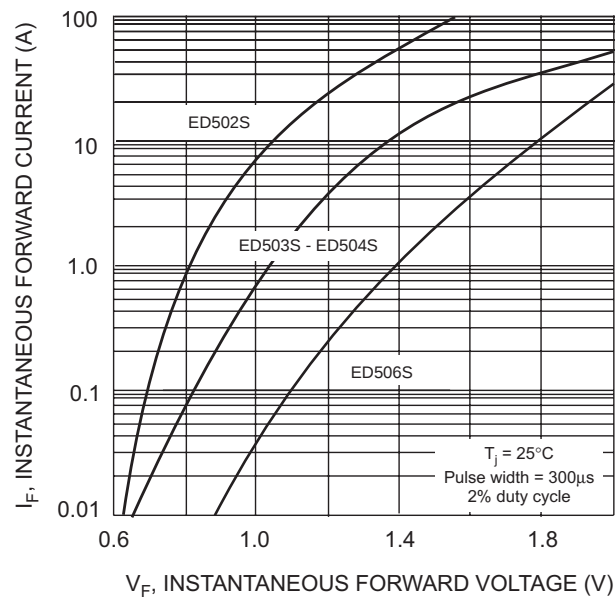


Fig. 2 Typical Forward Characteristics

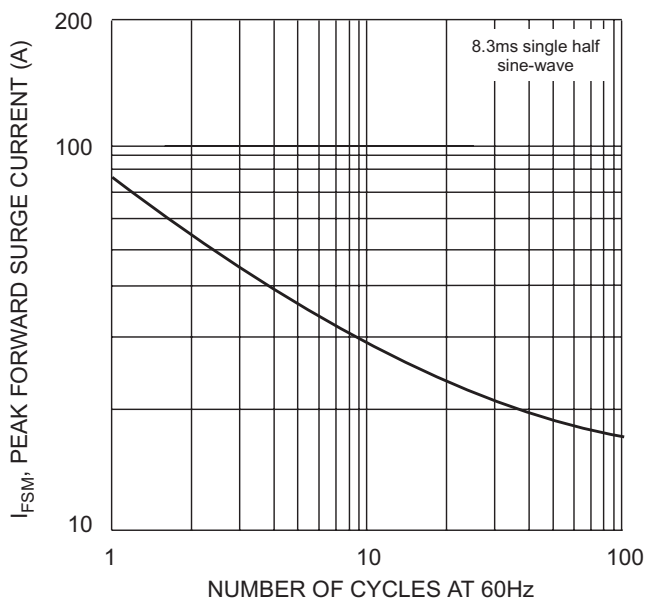


Fig. 3 Peak Forward Surge Current

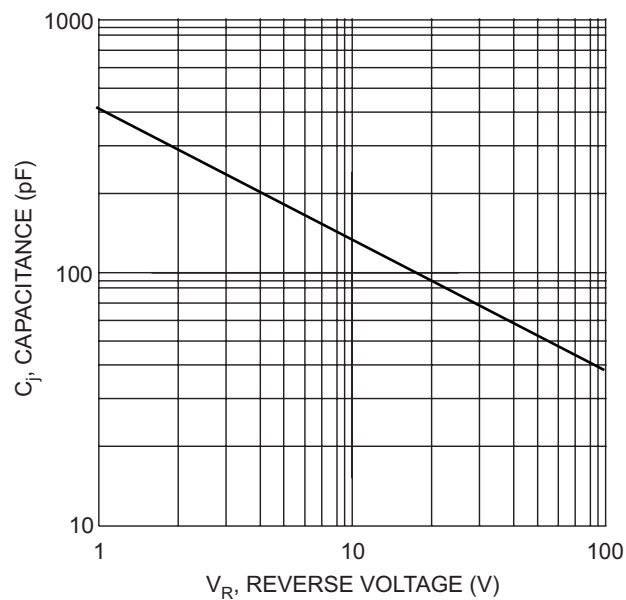
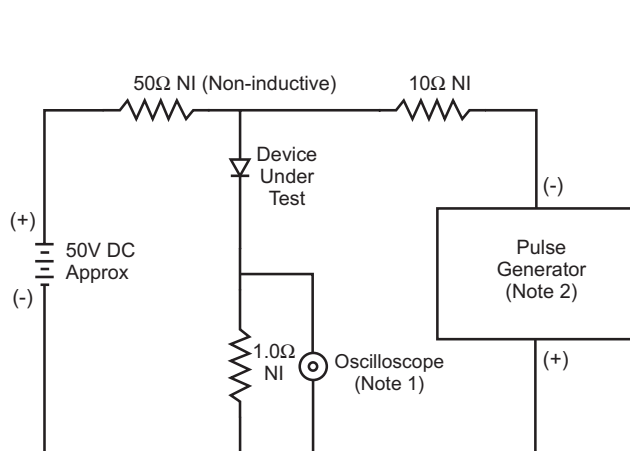
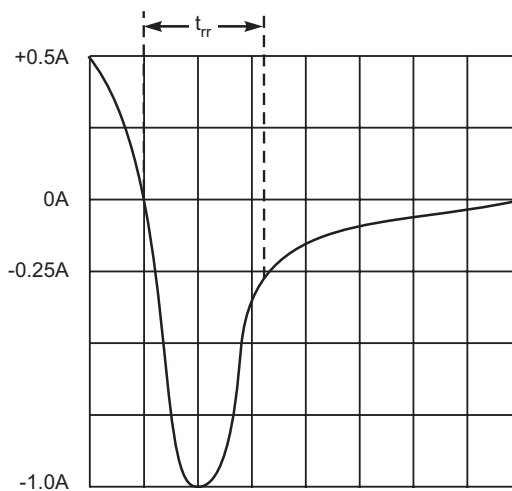


Fig. 4 Typical Junction Capacitance



Notes:

1. Rise Time = 7.0ns max. Input Impedance = $1.0\text{M}\Omega$, 22pF.
2. Rise Time = 10ns max. Input Impedance = 50Ω .



Set time base for 5/10ns/cm

Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

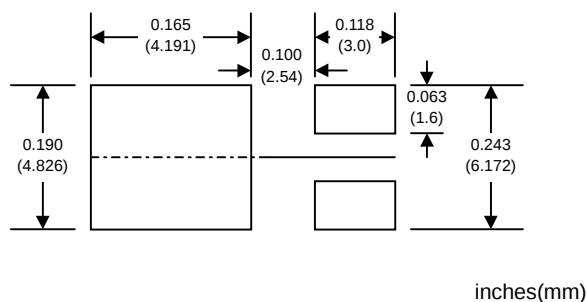
ORDERING INFORMATION

Product No.♦	Package Type	Shipping Quantity
ED502S-T3	DPAK	2500/Tape & Reel
ED503S-T3	DPAK	2500/Tape & Reel
ED504S-T3	DPAK	2500/Tape & Reel
ED506S-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



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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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