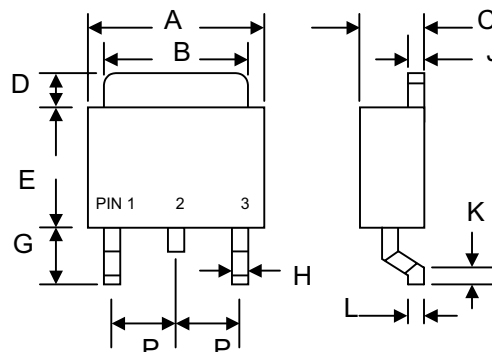


## Data Sheet 2602 Rev.—

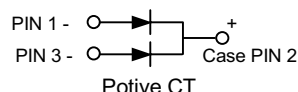
## Features

- 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)



D PAK/TO-252AA		
Dim	Min	Max
A	0.252(6.40)	0.268(6.80)
B	0.197(5.00)	0.213(5.40)
C	0.093(2.35)	0.108(2.75)
D	—	0.063(1.60)
E	0.209(5.30)	0.224(5.70)
G	0.091(2.30)	0.106(2.70)
H	0.016(0.40)	0.031(0.80)
J	0.016(0.40)	0.024(0.60)
K	0.012(0.30)	0.028(0.70)
L	0.020(0.50) Typical	
P	—	0.091(2.30)
All Dimensions in inch( 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	ED1002CS	ED1003CS	ED1004CS	ED1006CS	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	200	300	400	600	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	140	210	280	420	V
Average Rectified Output Current @T <sub>L</sub> = 100°C	I <sub>O</sub>	10				A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	100				A
Forward Voltage (Note 1) @I <sub>F</sub> = 10A	V <sub>FM</sub>	0.95	1.3		1.7	V
Peak Reverse Current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C	I <sub>RM</sub>	5.0 300				μA
Typical Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	43				K/W
Reverse Recovery Time (Note 2)	t <sub>rr</sub>	35	50			nS
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-50 to +150				°C

Note: 1. Mounted on P.C. Board with 14mm<sup>2</sup> (0.13mm thick) copper pad.  
2. Measured with I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>rr</sub> = 0.25A.

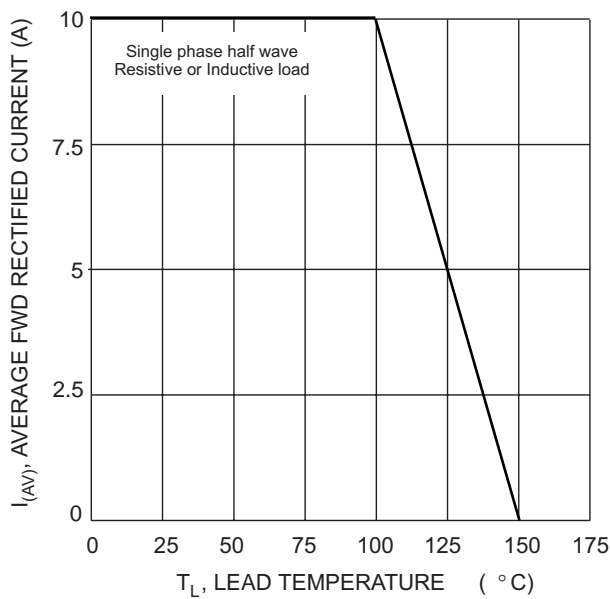


Fig. 1 Forward Current Derating Curve

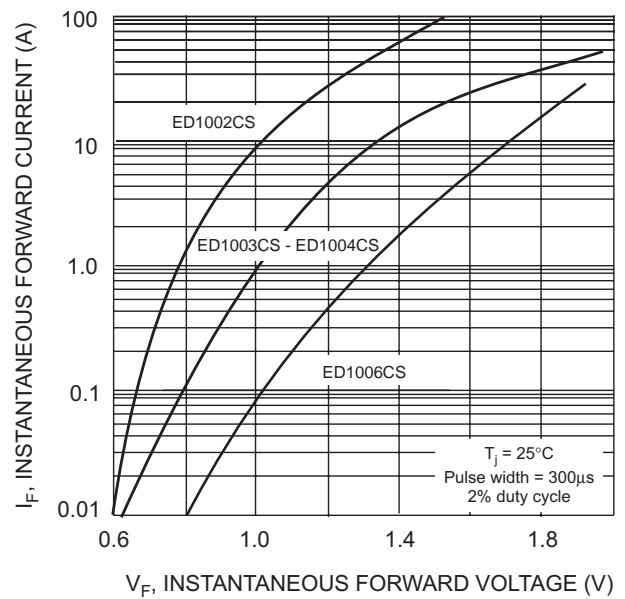


Fig. 2 Typical Forward Characteristics

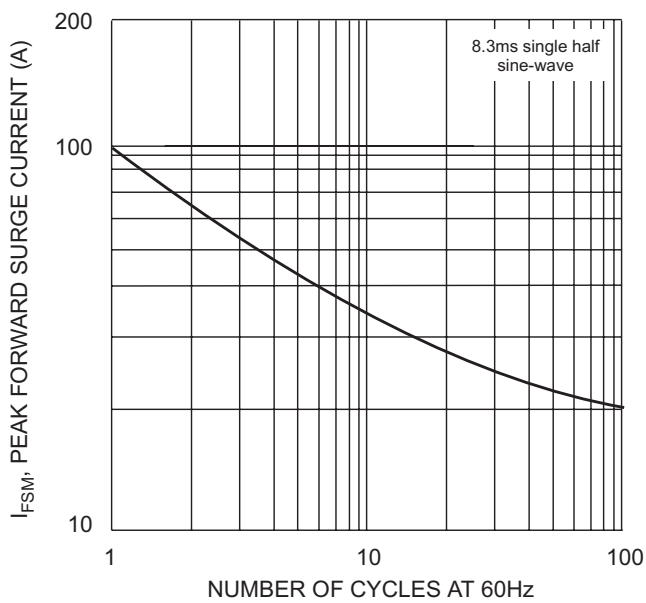


Fig. 3 Peak Forward Surge Current

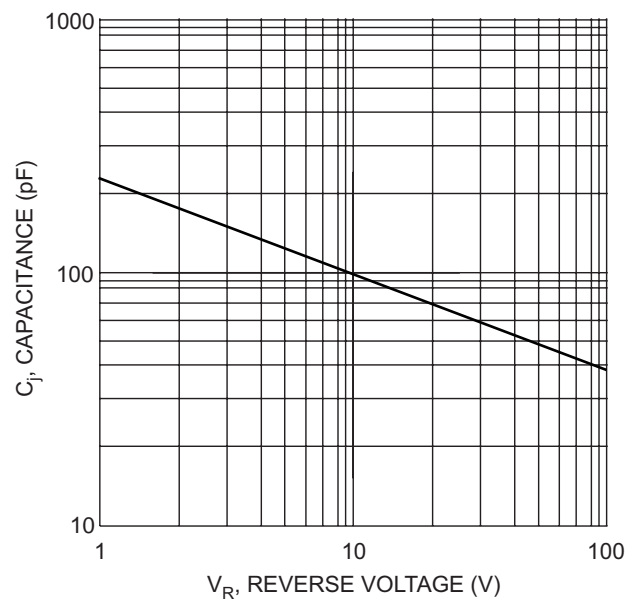
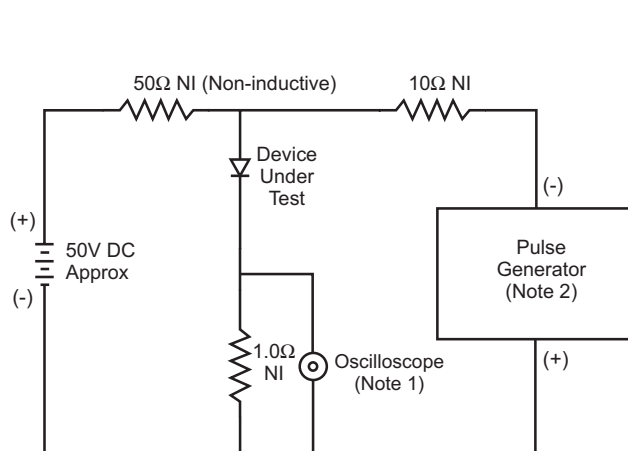


Fig. 4 Typical Junction Capacitance



Notes:

1. Rise Time = 7.0ns max. Input Impedance = 1.0MΩ, 22pF.
2. Rise Time = 10ns max. Input Impedance = 50Ω.

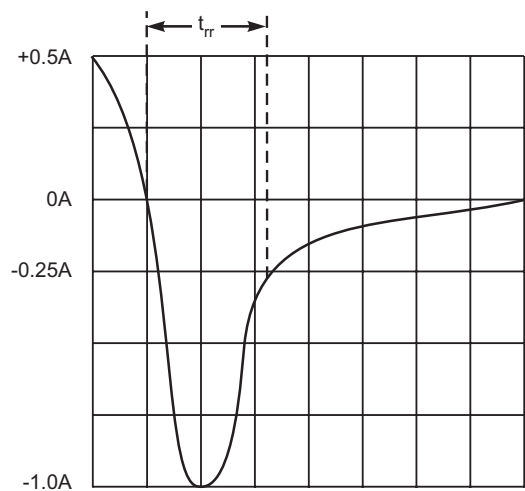


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

**TECHNICAL DATA**

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