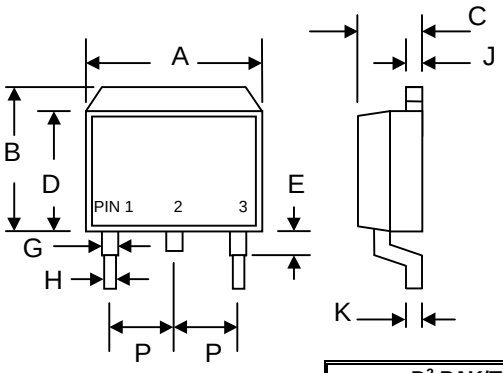
POWER SEMICONDUCTORS

ER800D – ER804D

8.0A D²PAK SURFACE MOUNT SUPER FAST RECTIFIER

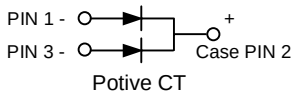
Features

- 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

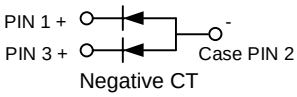


Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 1.7 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- Standard Packaging: 24mm Tape (EIA-481)



Potive CT



Negative CT
Suffix with "N"

D² PAK/TO-263		
Dim	**Min**	**Max**
A	9.8	10.4
B	9.6	10.6
C	4.4	4.8
D	8.5	9.1
E	—	0.7
G	1.0	1.4
H	—	0.9
J	1.2	1.4
K	0.3	0.7
P	2.35	2.75
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	ER 800D	ER 801D	ER 801AD	ER 802D	ER 803D	ER 804D	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	150	200	300	400	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	105	140	210	280	V
Average Rectified Output Current @T_C = 100°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}	125						A
Forward Voltage @I_F = 8.0A	V_{FM}	0.95				1.3		V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 100°C	I_{RM}	10 300						μA
Reverse Recovery Time (Note 1)	t_{rr}	35				50		**nS**
Typical Junction Capacitance (Note 2)	C_j	70				50		pF
Operating and Storage Temperature Range	T_j, T_{STG}	-50 to +150						°C

Note: 1. Measured with I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

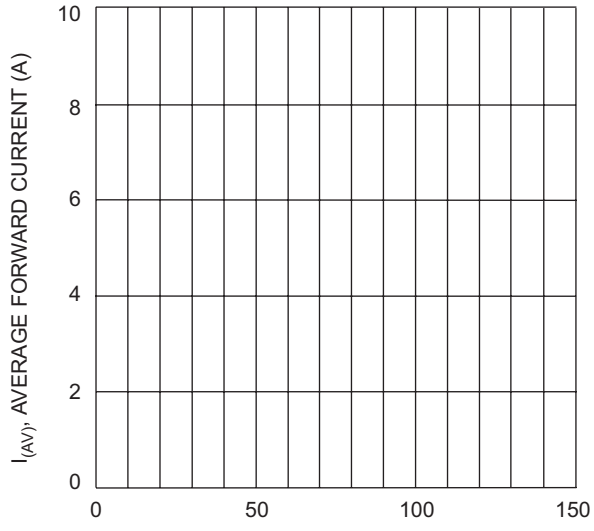


Fig. 1 Forward Current Derating Curve

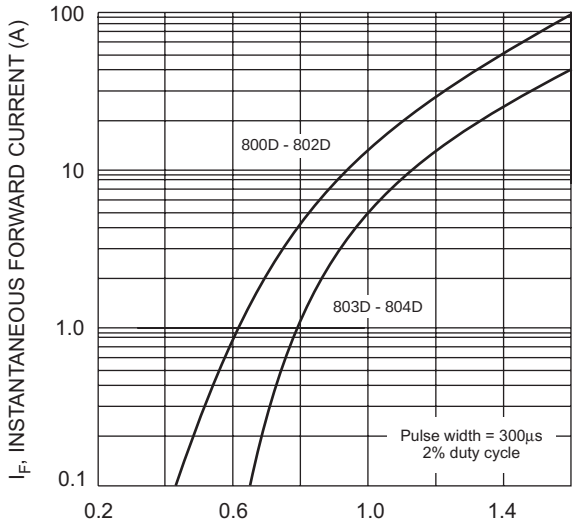


Fig. 2 Typical Forward Characteristics

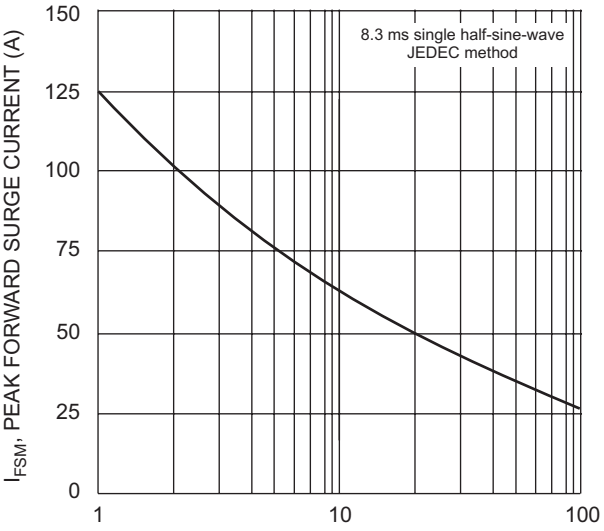


Fig. 3 Max Non-Repetitive Surge Current

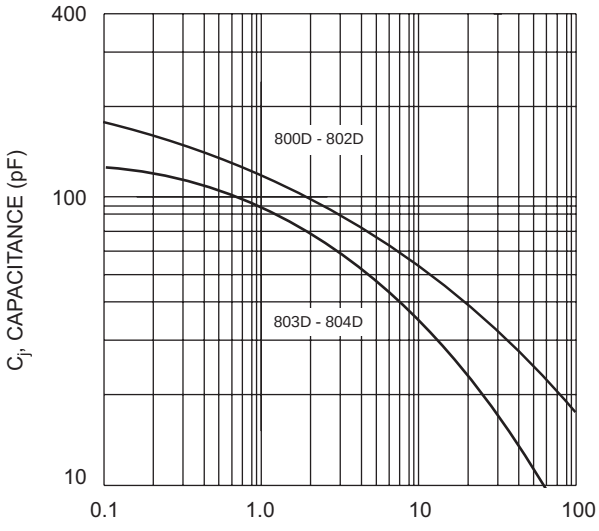


Fig. 4 Typical Junction Capacitance

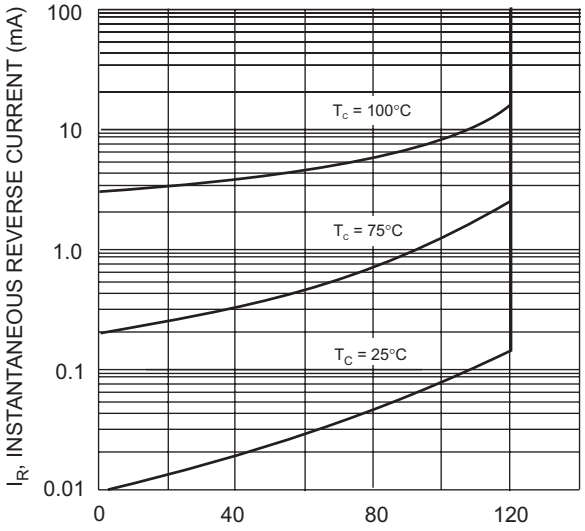


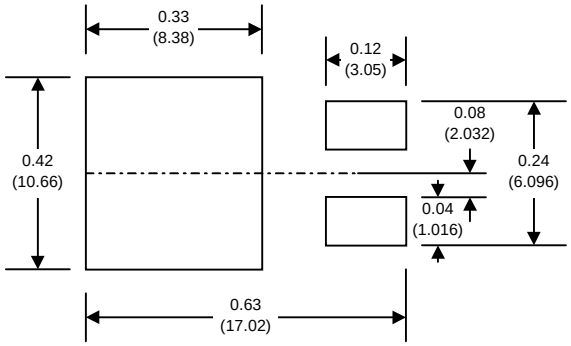
Fig. 5 Typical Reverse Characteristics

ORDERING INFORMATION

Product No.◆	Package Type	Shipping Quantity
ER800D-T3	D^2PAK	800/Tape & Reel
ER801D-T3	D^2PAK	800/Tape & Reel
ER801AD-T3	D^2PAK	800/Tape & Reel
ER802D-T3	D^2PAK	800/Tape & Reel
ER803D-T3	D^2PAK	800/Tape & Reel
ER804D-T3	D^2PAK	800/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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We power your everyday.

