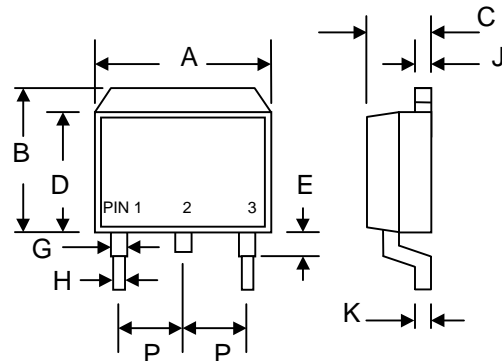


# ER1600DC – ER1604DC

## 16A D<sup>2</sup>PAK SURFACE MOUNT SUPER FAST RECTIFIER

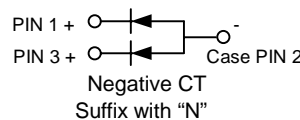
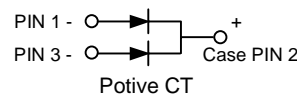
### Features

- 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)



D <sup>2</sup> 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<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	ER 1600DC	ER 1601DC	ER 1601ADC	ER 1602DC	ER 1603DC	ER 1604DC	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	50	100	150	200	300	400	V
RMS Reverse Voltage	V <sub>R</sub> (RMS)	35	70	105	140	210	280	V
Average Rectified Output Current      @T <sub>C</sub> = 90°C	I <sub>O</sub>	16						A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	125						A
Forward Voltage      @I <sub>F</sub> = 8.0A	V <sub>FM</sub>	0.95				1.3		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>	10 300						μA
Reverse Recovery Time (Note 1)	t <sub>rr</sub>	35				50		nS
Typical Junction Capacitance (Note 2)	C <sub>j</sub>	80				60		pF
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-50 to +150						°C

Note: 1. Measured with I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>rr</sub> = 0.25A.

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

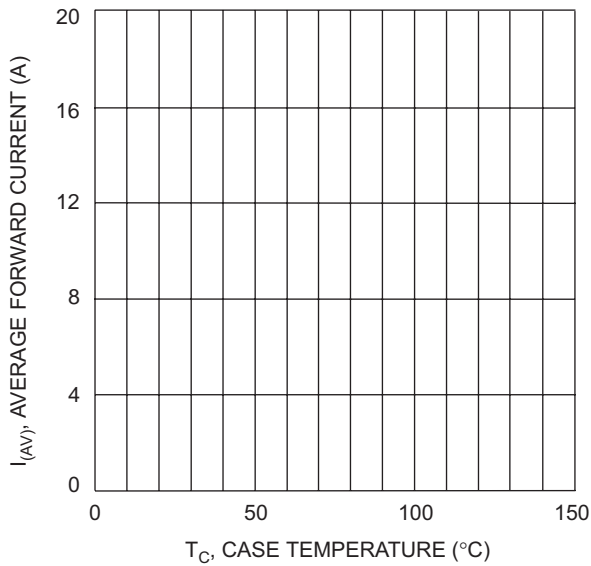


Fig. 1 Forward Current Derating Curve

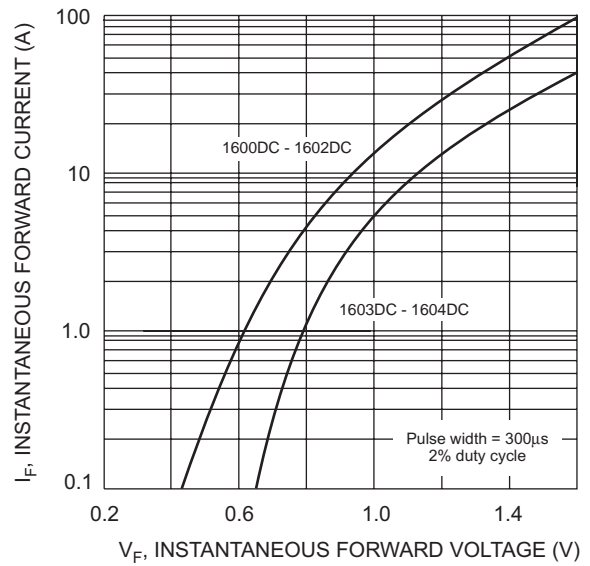


Fig. 2 Typical Forward Characteristics

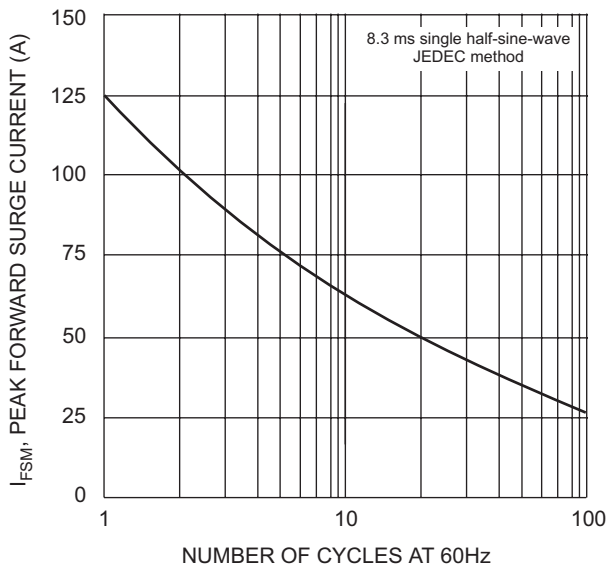


Fig. 3 Max Non-Repetitive Surge Current

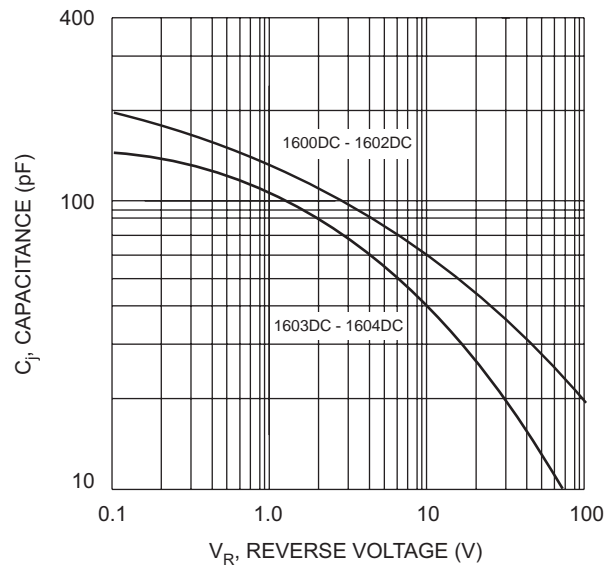


Fig. 4 Typical Junction Capacitance

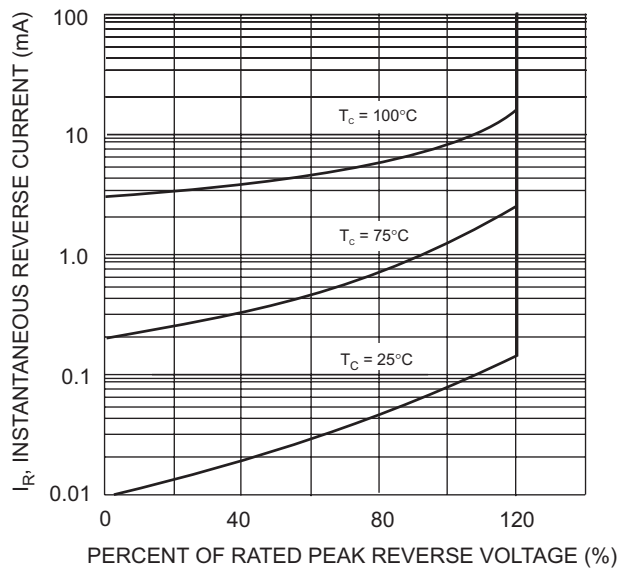


Fig. 5 Typical Reverse Characteristics

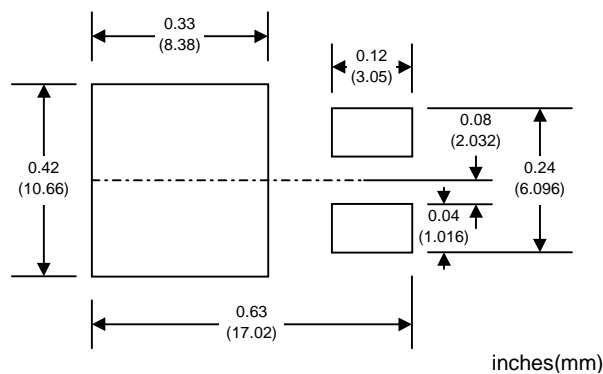
## ORDERING INFORMATION

Product No.♦	Package Type	Shipping Quantity
ER1600DC-T3	D <sup>2</sup> PAK	800/Tape & Reel
ER1601DC-T3	D <sup>2</sup> PAK	800/Tape & Reel
ER1601ADC-T3	D <sup>2</sup> PAK	800/Tape & Reel
ER1602DC-T3	D <sup>2</sup> PAK	800/Tape & Reel
ER1603DC-T3	D <sup>2</sup> PAK	800/Tape & Reel
ER1604DC-T3	D <sup>2</sup> PAK	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



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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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**Internet:** <http://www.wontop.com>

*We power your everyday.*