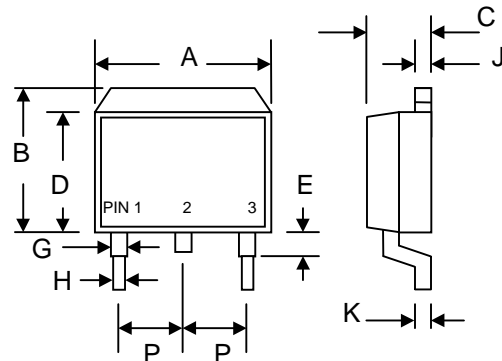


ER1600DC – ER1604DC

16A D²PAK SURFACE MOUNT SUPER FAST RECTIFIER

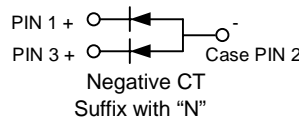
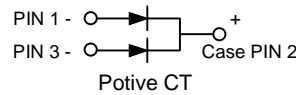
Features

- 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)



D ² 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 1600DC	ER 1601DC	ER 1601ADC	ER 1602DC	ER 1603DC	ER 1604DC	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 = 90°C	I _O	16						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	80				60		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.

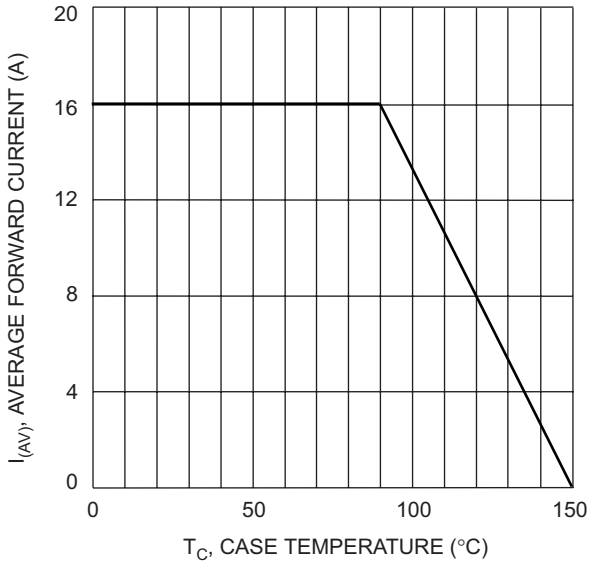


Fig. 1 Forward Current Derating Curve

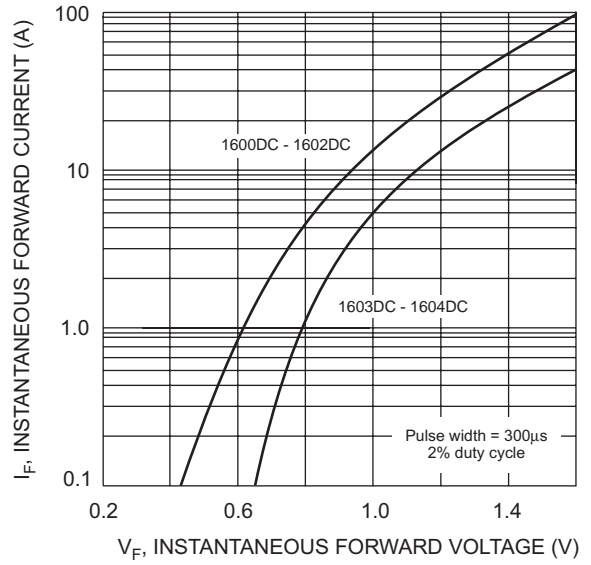


Fig. 2 Typical Forward Characteristics

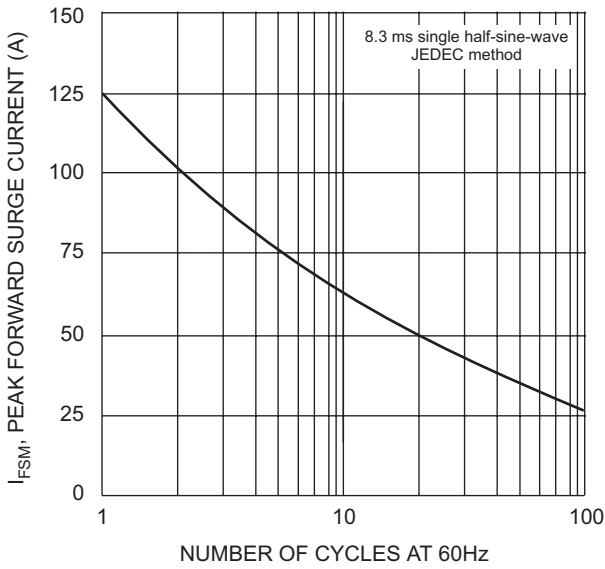


Fig. 3 Max Non-Repetitive Surge Current

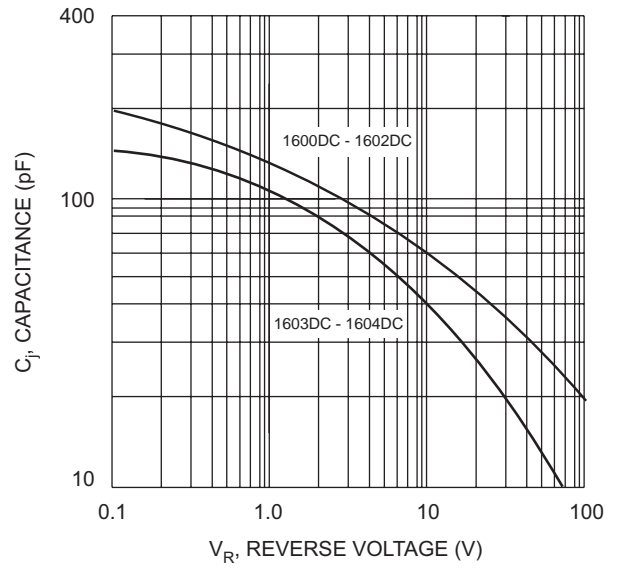


Fig. 4 Typical Junction Capacitance

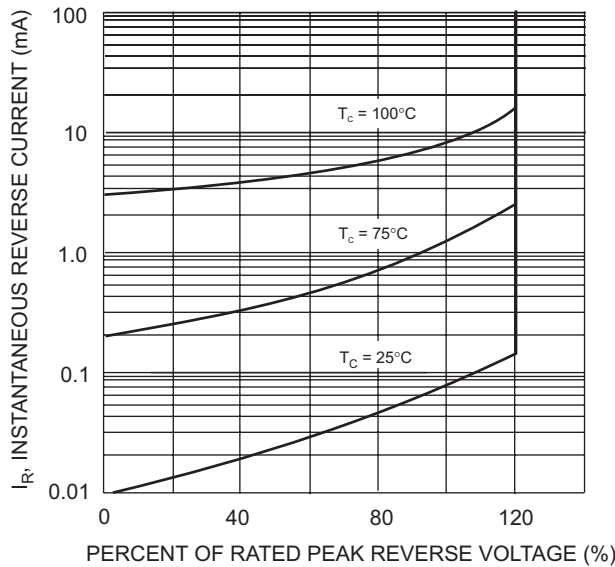


Fig. 5 Typical Reverse Characteristics

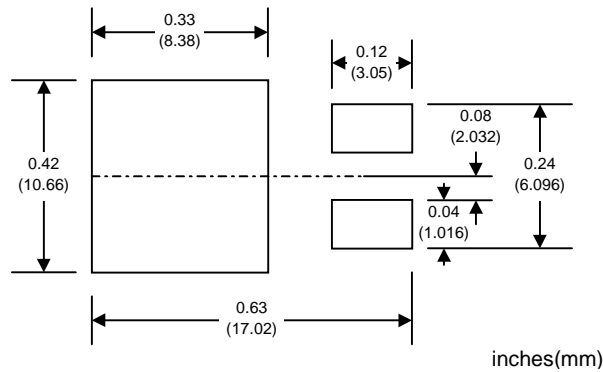
ORDERING INFORMATION

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



Won-Top Electronics Co., Ltd (WTE) has checked all information carefully and believes it to be correct and accurate. However, WTE cannot assume any responsibility for inaccuracies. Furthermore, this information does not give the purchaser of semiconductor devices any license under patent rights to manufacturer. WTE reserves the right to change any or all information herein without further notice.

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.

Won-Top Electronics Co., Ltd.

No. 44 Yu Kang North 3rd Road, Chine Chen Dist., Kaohsiung, Taiwan

Phone: 886-7-822-5408 or 886-7-822-5410

Fax: 886-7-822-5417

Email: sales@wontop.com

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

We power your everyday.