



ER1604DY

ISOLATION SUPERFAST RECOVERY RECTIFIER

VOLTAGE	400 Volt	CURRENT	16 Ampere
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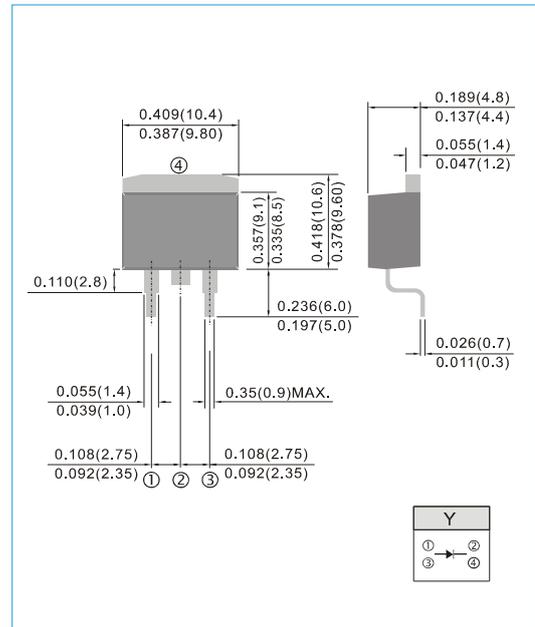
TO-263 / D²PAK	Unit : inch(mm)
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FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. Flame Retardant Epoxy Molding Compound.
- Low power loss, high efficiency.
- Low forward voltage, high current capability
- High surge capacity.
- Super fast recovery times, high voltage.
- Epitaxial chip construction.
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

- Case: TO-263/D²PAK Molded plastic package
- Terminals: Lead solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Standard packaging: Any
- Weight: 0.049 ounces, 1.38 grams.



MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%

PARAMETER	SYMBOL	VALUE	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	400	V
Maximum RMS Voltage	V_{RMS}	280	V
Maximum DC Blocking Voltage	V_{DC}	400	V
Maximum Average Forward Current at $T_c = 100^\circ\text{C}$	$I_{F(AV)}$	16.0	A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	300	A
Maximum Forward Voltage at 16A	V_F	1.30	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	1.0 500	μA
Maximum Reverse Recovery Time (Note 2)	t_{rr}	50	ns
Typical Junction Capacitance (Note 1)	C_J	175	pF
Typical Thermal Resistance	$R_{\theta JC}$	3.0	$^\circ\text{C} / \text{W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4 VDC.
2. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=0.25\text{A}$.
3. Both Bonding and Chip structure are available.



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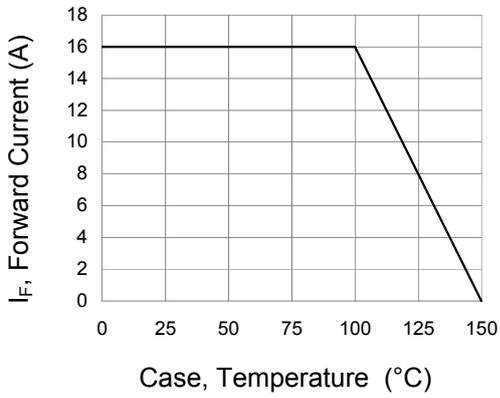


Fig.1 Forward Current Derating Curve

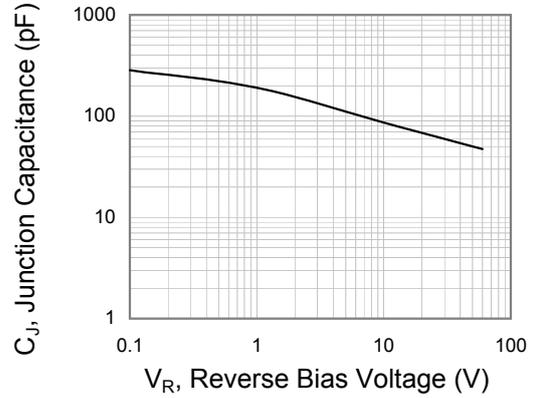


Fig.2 Typical Junction Capacitance

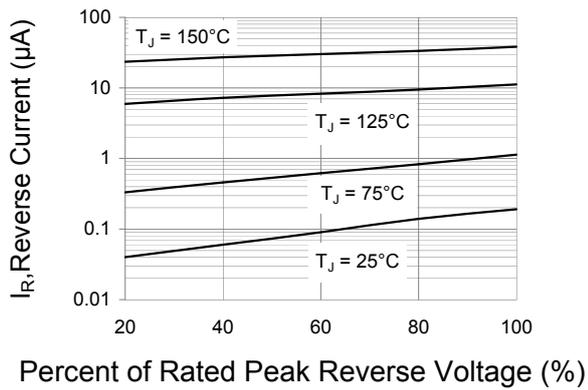


Fig.3 Typical Reverse Characteristics

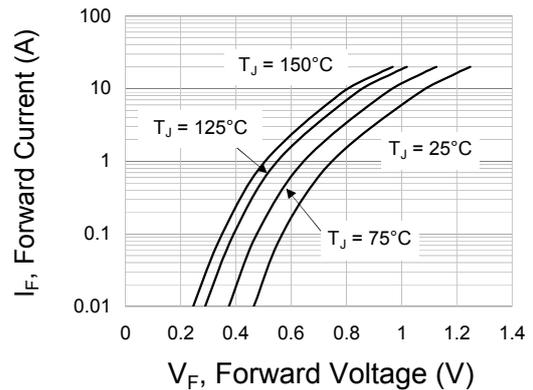
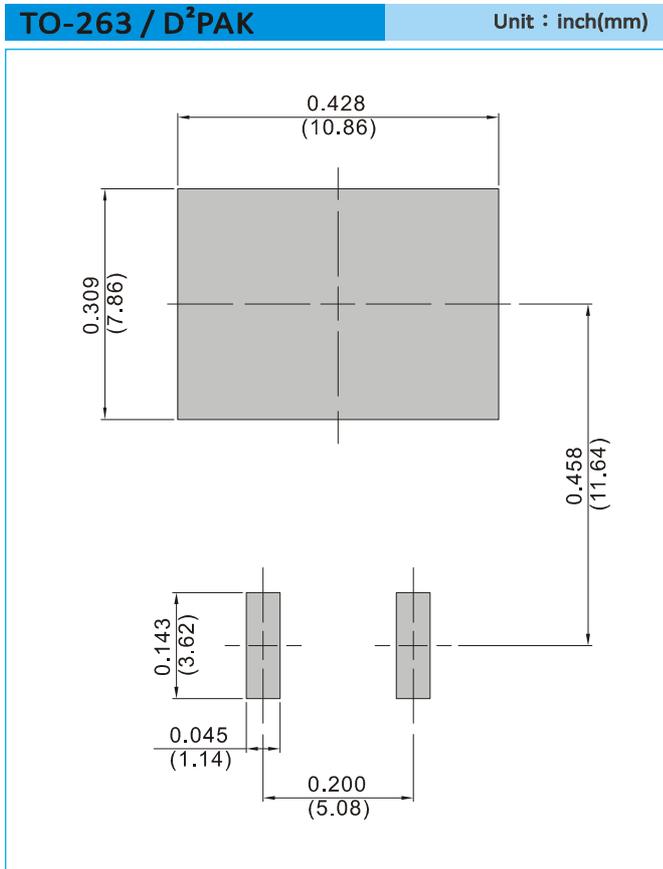


Fig.4 Typical Forward Characteristics



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
T/R - 0.8K per 13" plastic Reel



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Part No_packing code_Version

ER1604DY_R2_00001

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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