

ER1604DY

ISOLATION SUPERFAST RECOVERY RECTIFIER

VOLTAGE 400 Volts **CURRENT** 16.0 Amperes

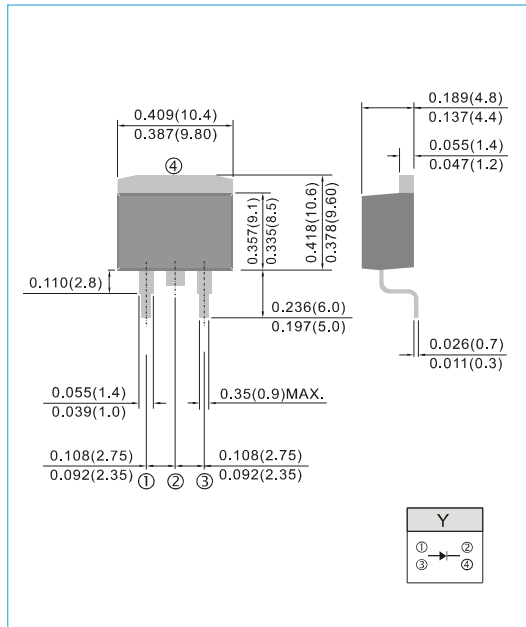
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228
- Low power loss, high efficiency.
- Low forward voltage, high current capability
- High surge capacity.
- Super fast recovery times, high voltage.
- Epitaxial chip construction.
- In compliance with EU RoHS 2002/95/EC directives

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: 0.0514 ounces, 1.46 grams.

TO-263 / D²PAK Unit : inch(mm)



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 $T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$	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:

- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
- Reverse Recovery Test Conditions: $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{rr} = 0.25\text{A}$.
- Both Bonding and Chip structure are available.

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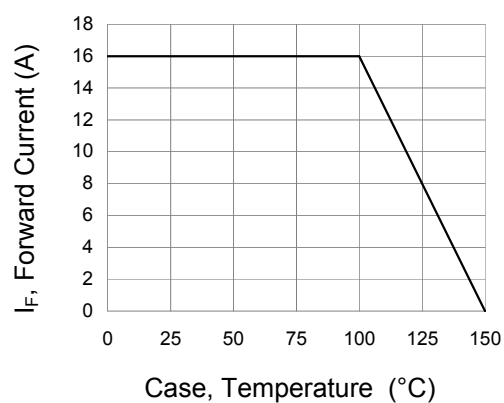


Fig.1 Forward Current Derating Curve

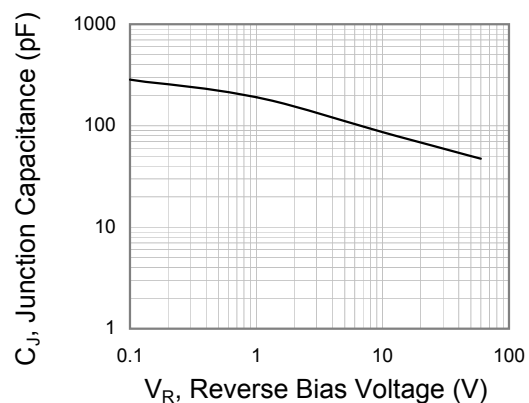


Fig.2 Typical Junction Capacitance

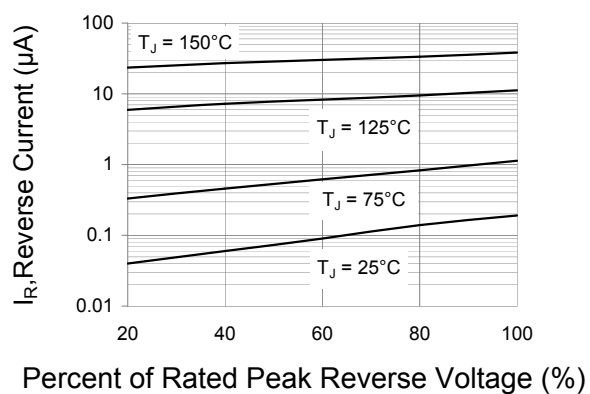


Fig.3 Typical Reverse Characteristics

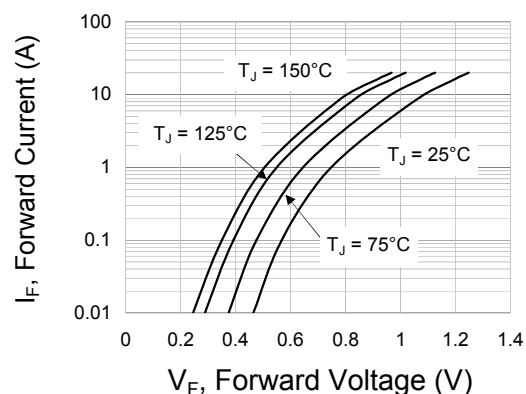


Fig.4 Typical Forward Characteristics