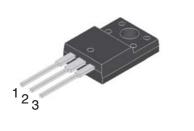


FURF1620CT FURF1660CT

16.0 Amp. Glass Passivated Ultrafast Recovery Rectifier

ITO-220AB





Common Cathode Suffix "C"

Voltage 200 to 600 V

Current 16.0 A

FEATURES

- Ultrafast recovery time for high efficiency
- Low power losses
- Low forward voltage drop
- High forward surge current capability
- Solder dip 260°C, 10s



 Meets MSL level 1, per J-STD-020, LF maximum peak of 260° C



RoHS

MECHANICAL DATA

- Case: ITO-220AB. Epoxy meets UL 94V-0 flammability rating.
- Polarity: As marked on the body.
- Mounting Torque: 5 in-lbs maximum.
- **Terminals:** Matte tin plated leads, solderable per MIL-STD-750 Method 2026, J-STD-002 and JESD22-B102. Consumer grade, meets JESD 201 class 1A whisker test.

TYPICAL APPLICATIONS

Used in high frequency rectifier of switching mode power supplies, inverters, freewheeling diodes, dc-to-dc converters, and other power switching application.

Maximun Ratings and Electrical Characteristics at 25°C

		FURF1620CT	FURF1640CT	FURF1660CT
V_{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	200	400	600
V _{RMS}	Maximum RMS Voltage (V)	140	280	420
V_{DC}	Maximum DC Blocking Voltage (V)	200	400	600
I _{F(AV)}	Average Rectified Forward Current Per Leg Total Device, (Rated V _R). T _C = 150 °C Total Device	8 A 16 A		
I _{FM}	Peak Rectified Forward Current (Rated VR, Square Wave, 20 KHz), T _C = 150 °C Per Diode Leg	16 A		
I _{FSM}	Non repetitive Peak Surge Current (Surge Applied at Rated Load Conditions Halfwave, Single Phase, 60 Hz)	100 A		
T_{rr}	Maximum Reverse Recovery Time from $I_F = 0.5A$; $I_{RB} = 1A$; $I_{RB} = 0.25A$ 50 ns		ns	
Tj	Operating Temperature Range	-65 to +175 °C		
T _{stg}	Storage Temperature Range	-65 to +175 °C		

Electrical Characteristics at Tamb = 25 °C

V _F	Max. Instantaneous Forward Voltage (Note 1) (IF = 8.0 Amps, T_C = 25 °C) (IF = 8.0 Amps, T_C = 150 °C)	0.975 V 0.895 V	1.30 V 1.300 V	1.50 V 1.20 V
I _R	Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage @ T _A = 25 °C @ T _A = 125 °C	5.0 μA 250 μA	10 μA 500 μA	
R _{thj-c}	Maximum Thermal Resistance, Junction to Case	3.0 °C/W	2.0 °C/W	

Note: 1. Pulse Test: Pulse Width = 300 µs, Duty Cycle ≤2.0%.

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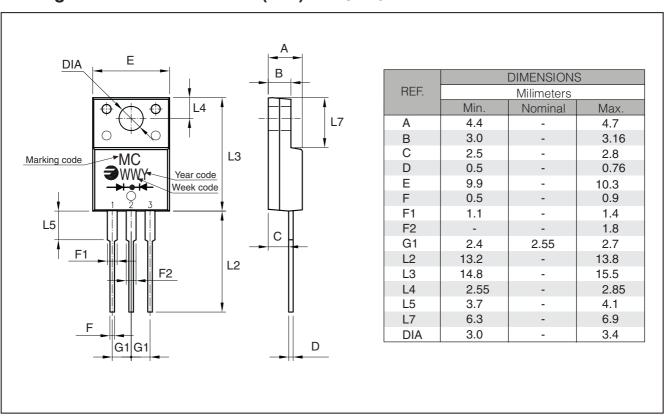


16.0 Amp. Glass Passivated Ultrafast Recovery Rectifier

Ordering information

PREFERRED P/N	PACKAGE CODE	DELIVERY MODE	BASE QUANTITY	UNIT WEIGHT (g)
FURF1640CTC 00TUC	TU	TUBE	2,000	2.02

Package Outline Dimensions: (mm) ITO-220AB



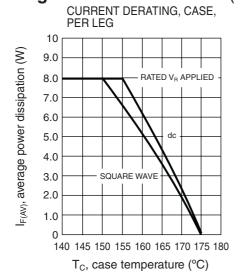


100



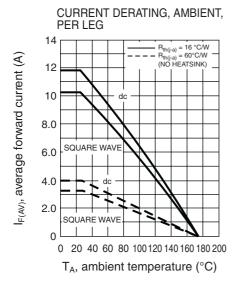
16.0 Amp. Glass Passivated Ultrafast Recovery Rectifier

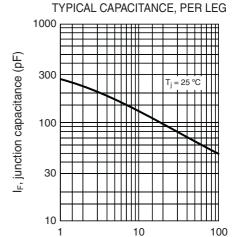
Ratings and Characteristics (Ta 25 °C unless otherwise noted) CURRENT DERATING, CASE, PER LEG TYPICAL FORWARD VOLTAGE, PER LEG



70 3 50 instantaneous forward current 30 20 10 7.0 5.0 3.0 2.0 100°C 1.0 0.7 0.5 0.3 0.2 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 V_F, instantaneous voltage (V)

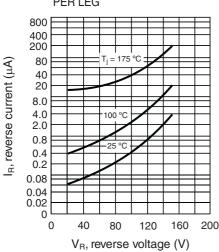
*The curves shown are typical for hightest voltage deice in the voltage grouping. Typical reverse current for lower voltage selections can be estimated from these same curves if $V_{\rm R}$ is sufficiently below rated $V_{\rm R}$.





V_B, reverse voltage (V)





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16.0 Amp. Glass Passivated Ultrafast Recovery Rectifier

Revision History

Date	Revision	Description of Changes
15-Apr-2008	0	Original Data Sheet
14-Sep-2016	1	Format update

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