UF2002FCT SERIES

ULTRAFAST RECOVERY RECTIFIERS

VOLTAGE 200 to 600 Volts **CURRENT** 20 Amperes

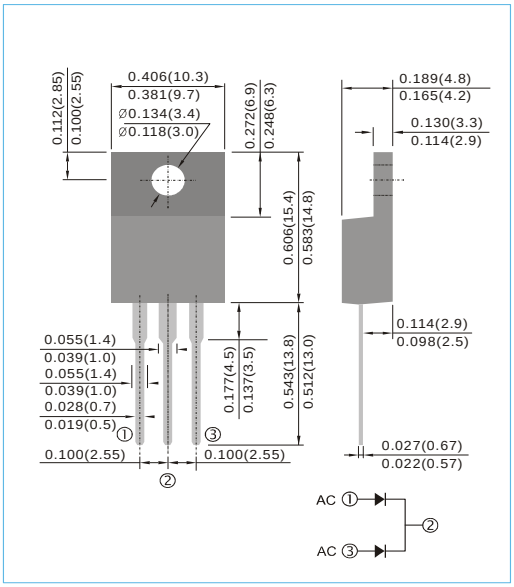
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing 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.
- Ultra fast recovery times, high voltage.
- In compliance with EU RoHS 2002/95/EC directives

MECHANCAL DATA

- Case: ITO-220AB full molded plastic package
- Terminals: Lead solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Standard packaging: Any
- Weight: 0.055 ounces, 1.561 grams.

ITO-220AB Unit : inch(mm)



MAXIMUM RATINGS 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	UF2002FCT	UF2003FCT	UF2004FCT	UF2006FCT	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	200	300	400	600	V
Maximum RMS Voltage	V_{RMS}	140	210	280	420	V
Maximum DC Blocking Voltage	V_{DC}	200	300	400	600	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	20				A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150				A
Maximum Forward Voltage at 10.0A	V_F	1.0	1.30		1.70	V
Maximum DC Reverse Current T_J=25°C at Rated DC Blocking Voltage T_J=125°C	I_R	1.0 250				μA
Typical Junction Capacitance (Notes 1)	C_J	200				pF
Maximum Reverse Recovery Time (Notes 2)	t_{rr}	50			100	ns
Typical Thermal Resistance (Notes 3)	$R_{\theta JC}$	7				°C / W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150				°C

NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
2. Reverse Recovery Test Conditions: I_F=.5A, I_R=1A, Irr=.25A.
3. Thermal resistance from Junction to ambient and from junction to lead

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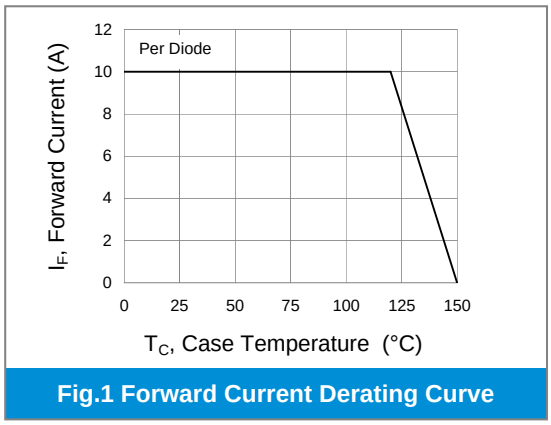

Fig.1 Forward Current Derating Curve

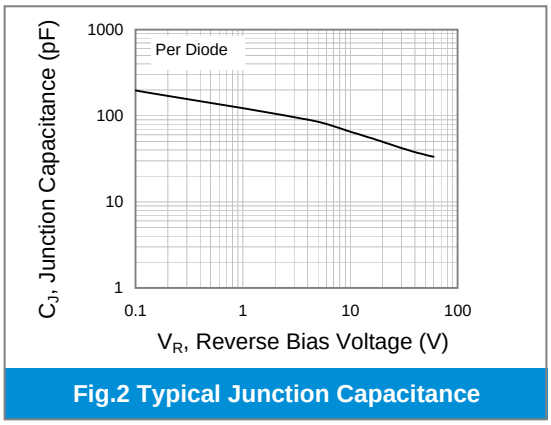

Fig.2 Typical Junction Capacitance

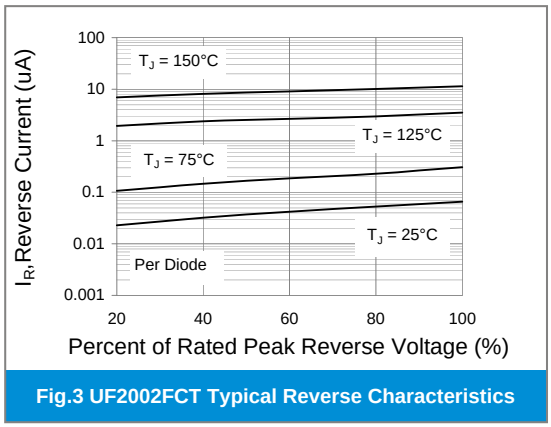

Fig.3 UF2002FCT Typical Reverse Characteristics

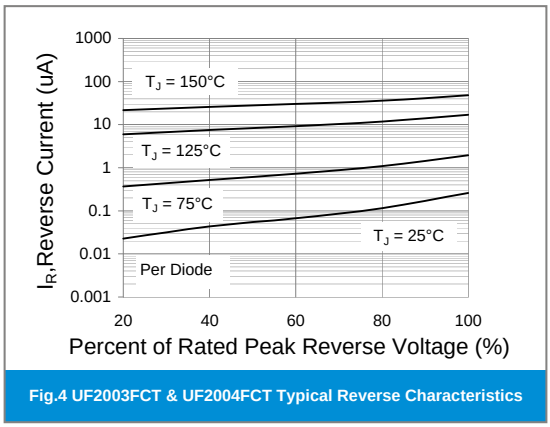

Fig.4 UF2003FCT & UF2004FCT Typical Reverse Characteristics

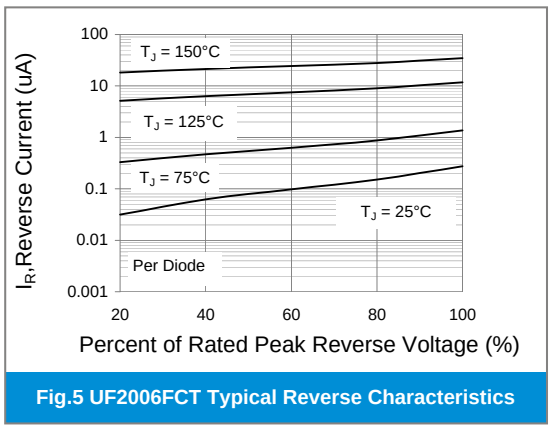

Fig.5 UF2006FCT Typical Reverse Characteristics

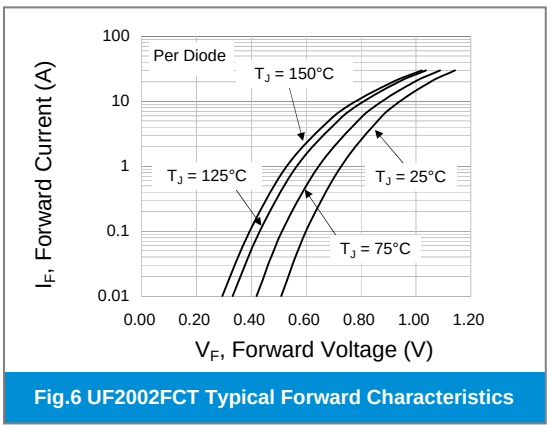

Fig.6 UF2002FCT Typical Forward Characteristics

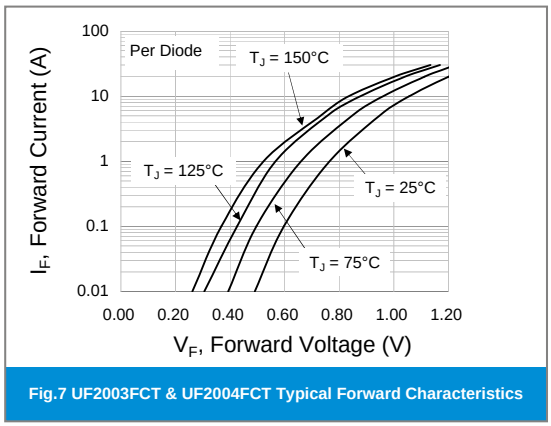

Fig.7 UF2003FCT & UF2004FCT Typical Forward Characteristics

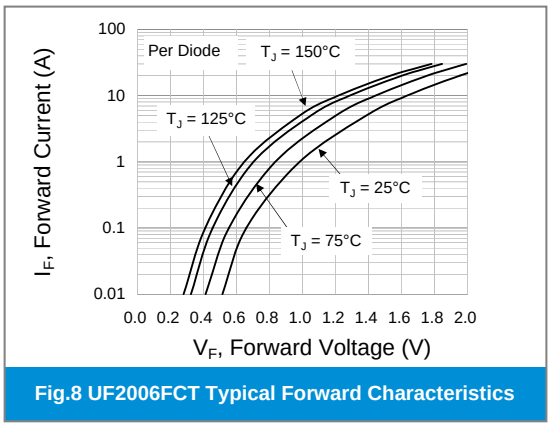

Fig.8 UF2006FCT Typical Forward Characteristics