



UF1600FCT~UF1606FCT

ULTRAFAST RECOVERY RECTIFIERS

VOLTAGE 50 to 600 Volts **CURRENT** 16 Amperes

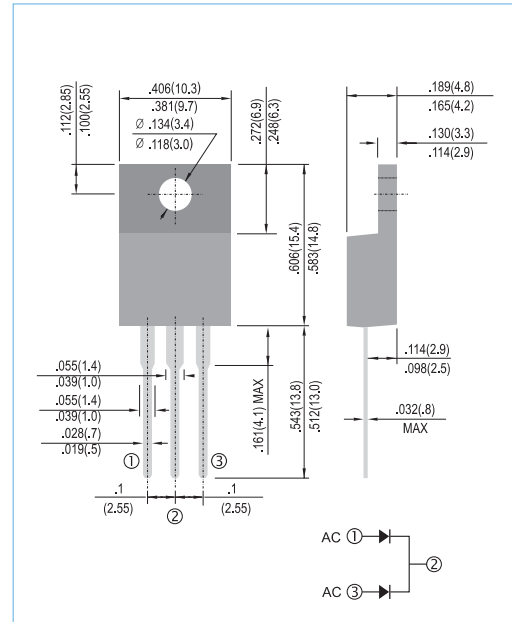
FEATURES

- 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

MECHANICAL DATA

- Case: ITO-220AB plastic package
- Terminals: Lead solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Standard packaging: Any
- Weight: 0.055 ounces, 1.5615 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	UF1600FCT	UF1601FCT	UF1602FCT	UF1603FCT	UF1604FCT	UF1606FCT	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	600	V
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	400	600	V
Maximum Average Forward Current at $T_c = 100^\circ\text{C}$	$I_{F(AV)}$	16						A
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	125						A
Maximum Forward Voltage at 8.0A	V_F	1.0			1.30		1.70	V
Maximum DC Reverse Current $T_j=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_j=125^\circ\text{C}$	I_R	1.0 500						μA
Typical Junction Capacitance (Note 1)	C_j	170					130	pF
Maximum Reverse Recovery Time (Note 2)	t_{rr}	50					100	ns
Typical Thermal Resistance (Note 3)	$R_{\theta JC}$	2						$^\circ\text{C} / \text{W}$
Operating Junction and Storage Temperature Range	T_j, T_{STG}	-65 to +150						$^\circ\text{C}$

NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
2. Reverse Recovery Test Conditions: $I_F=.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=.25\text{A}$.
3. Thermal resistance from Junction to case.



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RATING AND CHARACTERISTIC CURVES

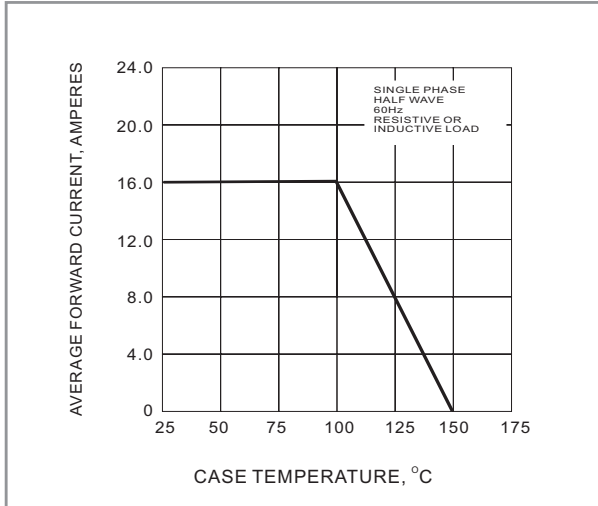


Fig.1 FORWARD CURRENT DERATING CURVE

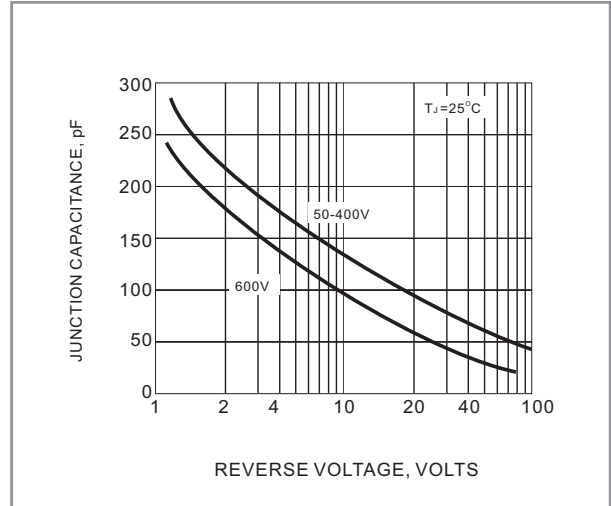


Fig.2 TYPICAL JUNCTION CAPACITANCES

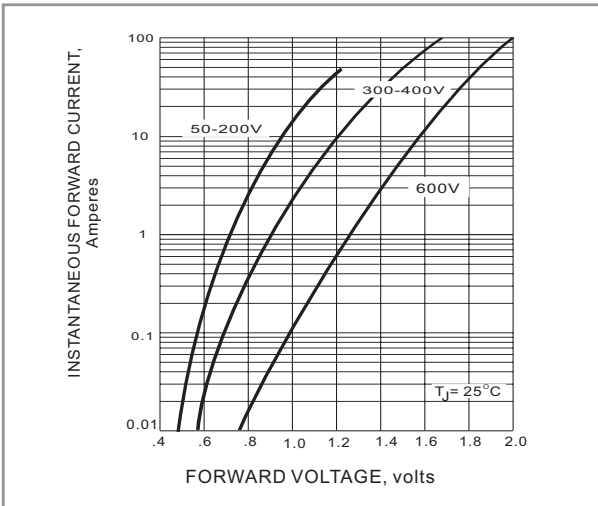


Fig.3 FORWARD CHARACTERISTICS

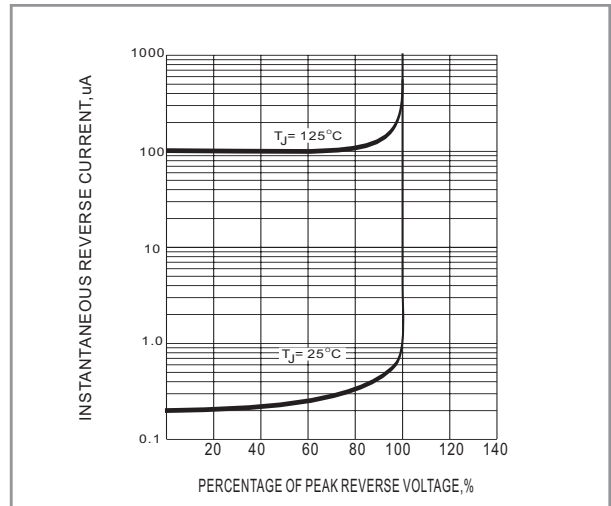


Fig.4 TYPICAL REVERSE CHARACTERISTICS

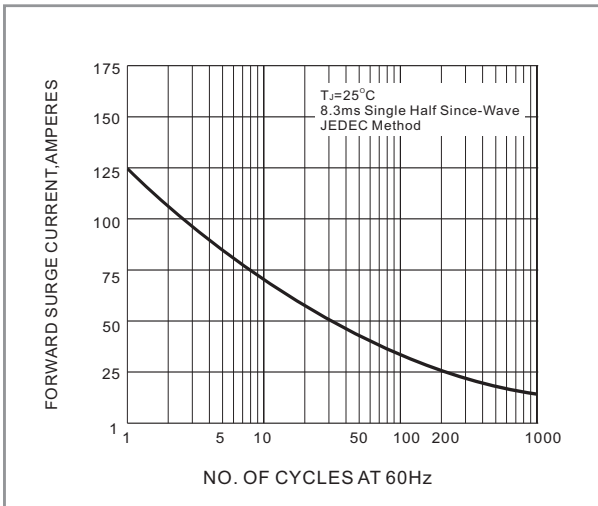


Fig.5 PEAK FORWARD SURGE CURRENT