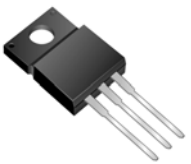
UF1600FCT thru UF1608FCT

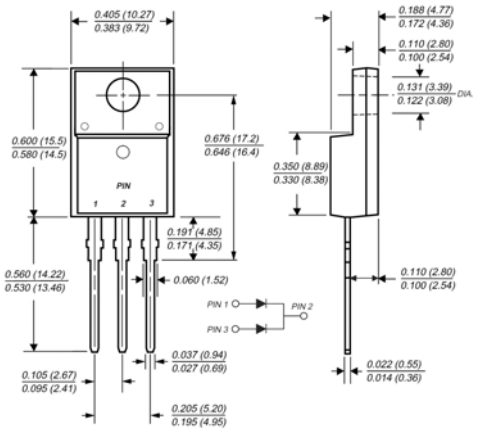
Isolation Glass Passivated High Efficient Rectifiers
Reverse Voltage 50 to 800 Volts Forward Current 16.0 Amperes

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 forwrd voltge, high current capability
- High surge capacity
- Ultra fast recovery times, high voltage



ITO-220AB



Mechanical Data

- Case: ITO-220AB full molded plastic package
- Terminals: Lead solderable per MIL-STD-202, Method 208
- Polarity: As marked
- Standard packaging: Any
- Weight: 0.08 ounces, 2.24 grams

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	UF 1600FCT	UF 1601FCT	UF 1602FCT	UF 1603FCT	UF 1604FCT	UF 1606FCT	UF 1608FCT	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	300	400	600	800	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	210	280	420	560	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	300	400	600	800	Volts
Maximum average forward rectified current at T_C=100°C	$I_{F(AV)}$	16.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	125.0							Amps
Maximum instantaneous forward voltage at 8.0A	V_F	1.0			1.3		1.7		Volts
Maximum DC reverse current @T_A=25°C at rated DC blocking voltage @T_A=125°C	I_R	10.0 500							uA
Maximum reverse recovery time at I_F=0.5A, I_R=1.0A, I_{rr}=0.25A (Note 1)	t_{rr}	50					100		nS
Typical junction capacitance at 4.0V, 1MHz (Note 2)	C_J	170.0					130.0		pF
Typical thermal resistance (Note 3)	$R_{\theta JC}$	2.0							°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							°C

Notes: 1. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1A, I_{rr}=0.25A.
2. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
3. Thermal resistance from Junction to ambient and from junction to lead 0.375" (9.5mm) P.C.B mounted.

RATINGS AND CHARACTERISTIC CURVES

(T_A = 25°C unless otherwise noted)

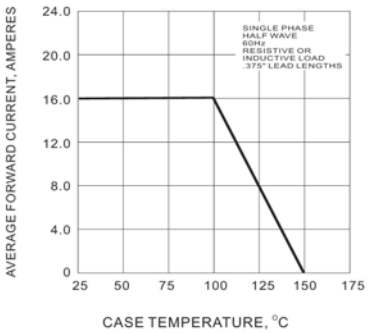


Fig.1 FORWARD CURRENT DERATING CURVE

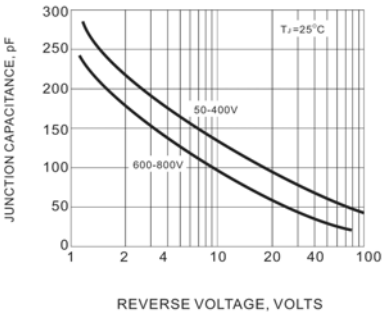


Fig.2 TYPICAL JUNCTION CAPACITANCES

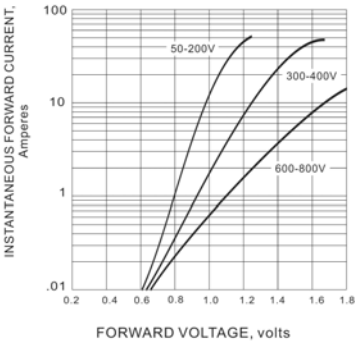


Fig.3 FORWARD CHARACTERISTICS

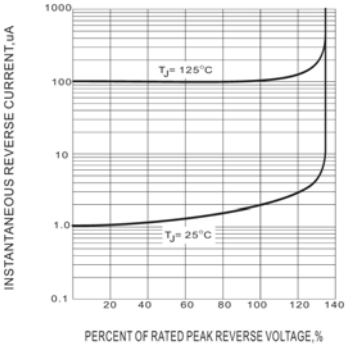


Fig.4 TYPICAL REVERSE CHARACTERISTICS

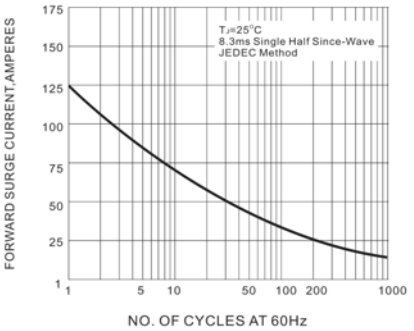


Fig.5 PEAK FORWARD SURGE CURRENT

Web site: http://www.semiteltech.com

For additional information, please contact your local Sales Representative.