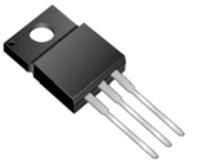
MUR1005FCT thru MUR1040FCT

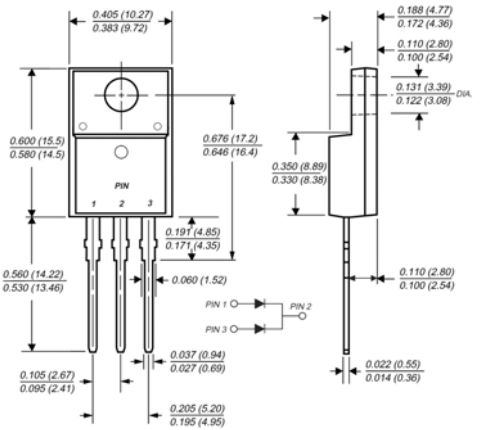
Glass Passivated Super Fast Rectifiers
Reverse Voltage 50 to 400 Volts Forward Current 10.0 Amperes

Features

- Low power loss, high efficiency
- Low forward voltage, high current capability
- High surge capacity
- Super 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, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%

Parameter	Symbol	MUR 1005FCT	MUR 1010FCT	MUR 1015FCT	MUR 1020FCT	MUR 1030FCT	MUR 1040FCT	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	300	400	Volts
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	Volts
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	Volts
Maximum average forward rectified current at T_C=100°C	$I_{F(AV)}$	10.0						Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150.0						Amps
Maximum instantaneous forward voltage at 5.0A per element	V_F	0.95				1.3		Volts
Maximum DC reverse current @T_C=25°C at rated DC blocking voltage @T_C=100°C	I_R	10.0 500						uA
Maximum reverse recovery time at I_F=0.5A, I_R=1.0A, I_{rr}=0.25A	t_{rr}	35				50		nS
Typical junction capacitance at 4.0V, 1MHz	C_J	62						pF
Typical thermal resistance	$R_{\theta JC}$	3.0						°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150						°C

Notes: 1. Pulse test: Pulse width 300 usec, Duty cycle 2%

RATINGS AND CHARACTERISTIC CURVES

(T_A = 25°C unless otherwise noted)

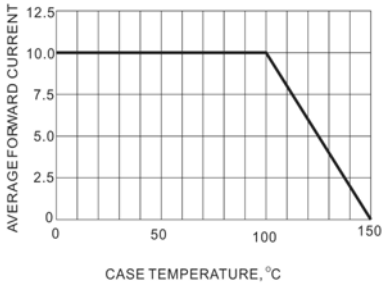


Fig.1-FORWARD CURRENT DERATING CURVE

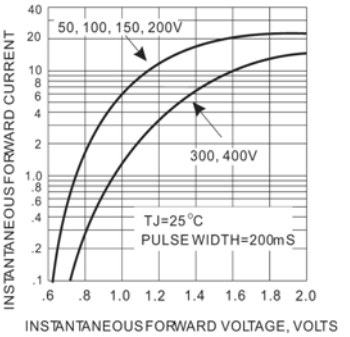


Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

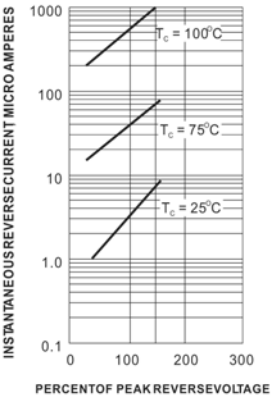


Fig.3- **TYPICAL REVERSE CHARACTERISTIC**

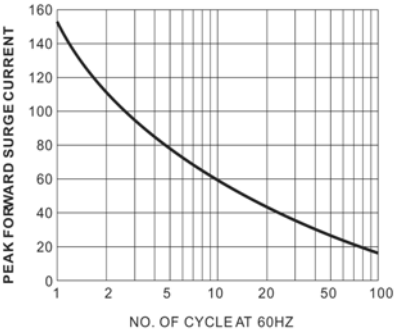


Fig.4-MAXIMUM NON-REPETITIVE SURGE CURRENT

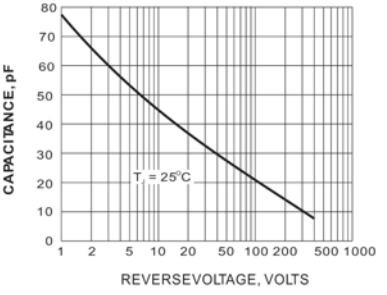


Fig.5-TYPICAL JUNCTION CAPACITANCE