



Micro Commercial Components

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 20736 Marilla Street Chatsworth
 CA 91311
 Phone: (818) 701-4933
 Fax: (818) 701-4939

MUR1005FCT THRU MUR1040FCT

Features

- Low power loss, high efficiency
- Low forward voltage, high current capability
- High surge capacity
- Super fast recovery times, high voltage
- Case : ITO-220AB Full Molded Plastic Package

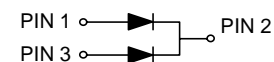
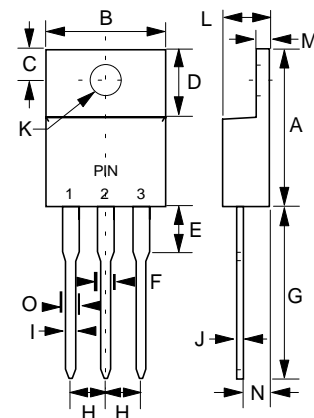
**10 Amp
 Isolation Super Fast
 Recovery Rectifier
 50 to 400 Volts**

Maximum Ratings

- Operating Junction Temperature: -50°C to +150°C
- Storage Temperature: -50°C to +150°C

MCC Catalog Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MUR1005FCT	50V	35V	50V
MUR1010FCT	100V	70V	100V
MUR1015FCT	150V	105V	150V
MUR1020FCT	200V	140V	200V
MUR1030FCT	300V	210V	300V
MUR1040FCT	400V	280V	400V

ITO-220AB



Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	10A	$T_C = 100^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	150A	8.3ms, half sine
Maximum Instantaneous Forward Voltage 1005FCT-1020FCT 1030FCT-1040FCT	V_F	0.95V 1.30V	$I_{FM} = 5.0\text{A};$ $T_C = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	10 μA 500 μA	$T_C = 25^\circ\text{C}$ $T_C = 100^\circ\text{C}$
Typical Junction Capacitance	C_J	62pF	Measure at 1MHz, $V_R=4.0\text{V}$
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	3.0°C/W	
Maximum Reverse Recovery Time 1005FCT-1020FCT 1030FCT-1040FCT	t_{rr}	35ns 50ns	$I_F=0.5\text{A}, I_R=1.0\text{A},$ $I_{rr}=0.25\text{A}$

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.583	.606	14.80	15.40	
B	---	.406	---	10.30	
C	.100	.112	2.55	2.85	
D	.248	.272	6.30	6.90	
E	---	.161	---	4.10	
F	---	.071	---	1.80	
G	.512	.543	13.00	13.80	
H	---	.100	---	2.55	
I	---	.035	---	0.90	
J	---	.032	---	0.80	
K	.118	.134	3.00	3.40	∅
L	---	.189	---	4.80	
M	---	.130	---	3.30	
N	.098	.114	2.50	2.90	
O	---	.055	---	1.40	

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%

RATING AND CHARACTERISTIC CURVES

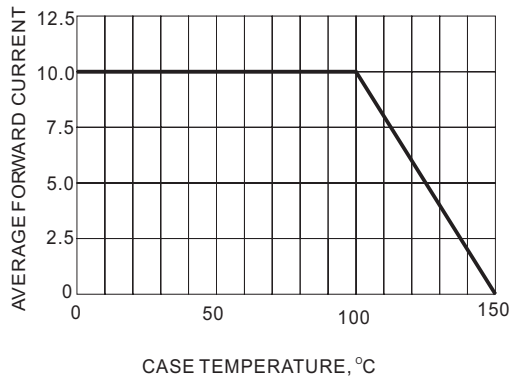


Fig.1-FORWARD CURRENT DERATING CURVE

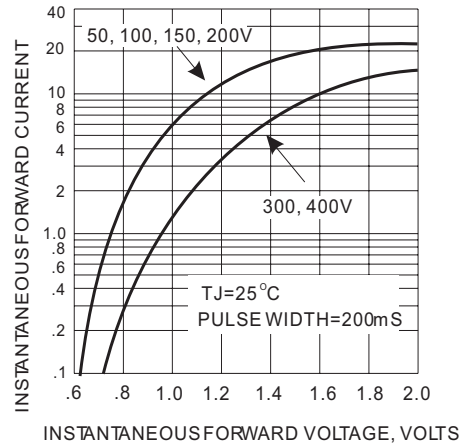


Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

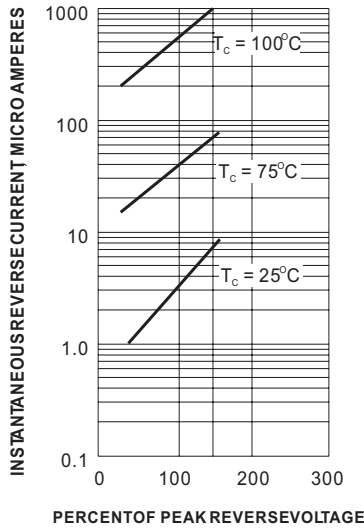


Fig.3-TYPICAL REVERSE CHARACTERISTIC

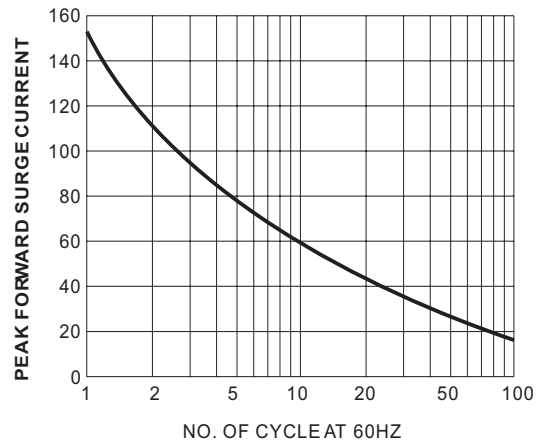


Fig.4-MAXIMUM NON-REPETITIVE SURGE CURRENT

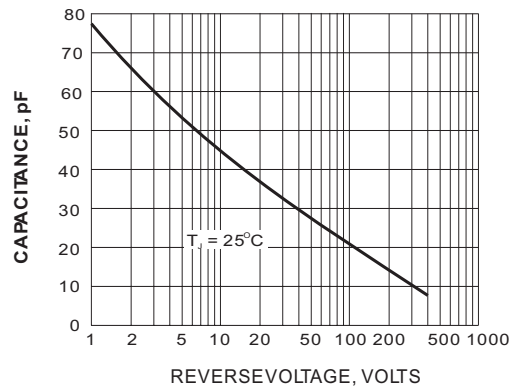


Fig.5-TYPICAL JUNCTION CAPACITANCE