

Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Low Switching Losses and High Efficiency
- Low Reverse Leakage
- Ultrafast Recovery Time
- Planar Structure Die and Soft Recovery Characteristics

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +175°C
- Storage Temperature Range: -55°C to +175°C
- Typical Thermal Resistance: 4°C/W Junction to Case

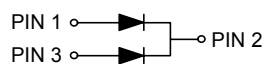
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MURS2040FCTA	MURS2040FCTA	400V	280V	400V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Rectified Forward Current	$I_{F(AV)}$	20A	$T_C=75^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	120A	8.3ms, Half Sine
Instantaneous Forward Voltage	V_F	1.10V(Typ) 1.25V(Max) 1.05V(Max)	$I_F=10\text{A}; T_J=25^\circ\text{C}$ $I_F=10\text{A}; T_J=25^\circ\text{C}$ $I_F=10\text{A}; T_J=125^\circ\text{C}$
Maximum Reverse Current At Rated DC Blocking Voltage	I_R	5uA 50uA	$T_J=25^\circ\text{C};$ $T_J=125^\circ\text{C}$
Typical Junction Capacitance	C_J	50pF	Measured at 1.0MHz, $V_R=4.0\text{V}$
Reverse Recovery Time	t_{rr}	25ns(Typ.) 35ns(Max.)	$I_F=0.5\text{A}; I_R=1.0\text{A};$ $I_{RR}=0.25\text{A}$
Peak recovery current	I_{RRM}	4.1A(Typ.) 8.1A(Typ.)	$T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$ $I_F=10\text{A}$ $di_F/dt=-200\text{A}/\mu\text{s}$ $V_R=200\text{V}$
Reverse recovery charge	Q_{rr}	68nC(Typ.) 225nC(Typ.)	$T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$

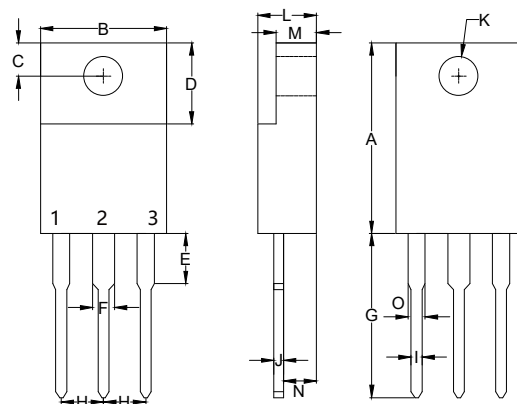
Note :1. High Temperature Solder Exemption Applied, See EU Directive Annex 7a.

Internal Structure



20 Amp FRED Rectifiers 400 Volts

ITO-220AB



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.567	0.642	14.40	16.30	
B	-----	0.421	-----	10.70	
C	0.085	0.128	2.15	3.25	
D	0.248	0.272	6.30	6.90	
E	-----	0.177	-----	4.50	
F	-----	0.071	-----	1.80	
G	0.500	0.539	12.70	14.20	
H	-----	0.100	-----	2.55	
I	-----	0.035	-----	0.90	
J	-----	0.032	-----	0.80	
K	0.102	0.150	2.60	3.80	Φ
L	-----	0.201	-----	5.10	
M	-----	0.140	-----	3.56	
N	0.083	0.126	2.10	3.20	
O	-----	0.071	-----	1.80	

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

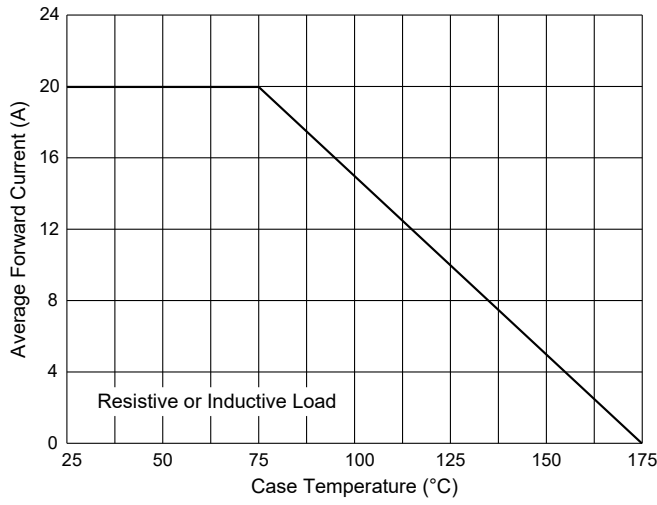


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

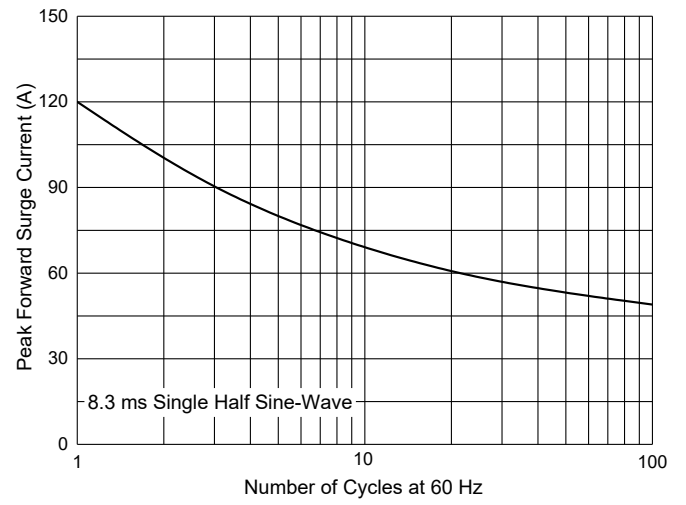


Fig. 3 - Typical Instantaneous Forward Characteristics

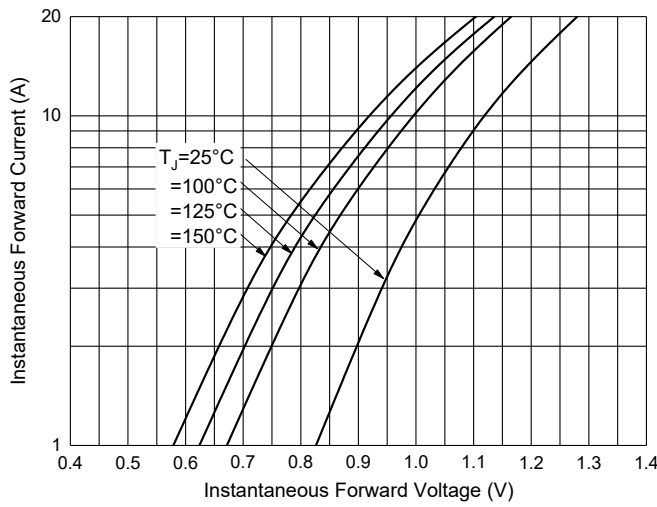
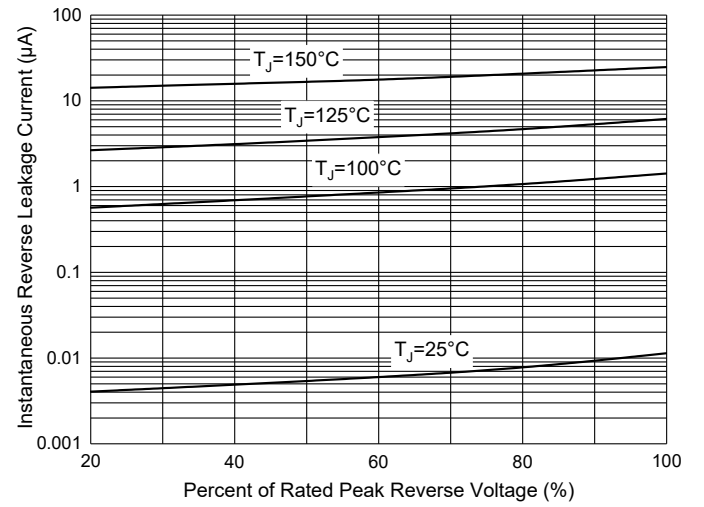


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

Device	Packing
Part Number-BP	Bulk:50pcs/Tube,1Kpcs/Box,5Kpcs/Carton

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-BP-HF

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