



SUPER FAST DIODE MODULE TYPES 300A

Features

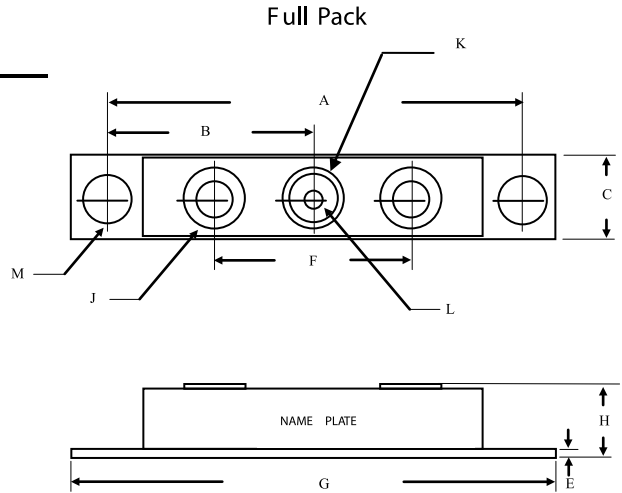
High Surge Capability
Types Up to 600V V_{RRM}

**300 Amp Rectifier
50-600 Volts**

Maximum Ratings

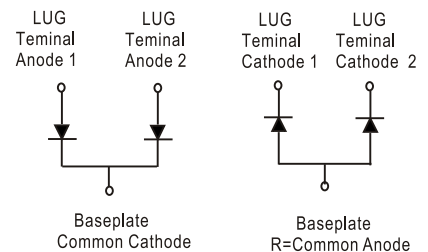
Operating Temperature: -55°C to $+175^{\circ}\text{C}$
Storage Temperature: -55°C to $+175^{\circ}\text{C}$

Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MURF30005(R)	50V	35V	50V
MURF30010(R)	100V	70V	100V
MURF30020(R)	200V	140V	200V
MURF30040(R)	400V	280V	400V
MURF30060(R)	600V	420V	600V



Electrical Characteristics @ 25 °C Unless Otherwise Specified

Average Forward Current (Per pkg)	$I_{F(AV)}$	300 A	$T_C = 140^{\circ}\text{C}$
Peak Forward Surge Current (Per leg)	I_{FSM}	2750A	8.3ms , half sine
Maximum Instantaneous Forward Voltage * (Per leg) 30005~30020 30040 30060	V_F	1.00V 1.30V 1.70V	$I_{FM} = 150A;$ $T_J = 25^{\circ}\text{C}$
Maximum Reverse Current At Rated DC Blocking Voltage (Per leg)	I_R	25 uA 3 mA	$T_J = 25^{\circ}\text{C}$ $T_J = 125^{\circ}\text{C}$
Maximum Reverse Recovery Time (Per leg) 30005~30020 30040 30060	T_{rr}	100 ns 110 ns 150 ns	$I_F = 0.5A, I_R = 1.0A,$ $I_{RR} = 0.25A$
Maximum Thermal Resistance Junction To Case (Per leg)	$R_{\theta jc}$	0.40°C/W	



DIM	Inches		Millimeters	
	Min	Max	Min	Max
A	3.144	NOM	79.85	NOM
B	1.565	1.585	39.75	40.26
C	0.700	0.800	17.78	20.32
E	0.119	0.14	3.02	3.50
F	1.358	REF.	34.50	REF.
G	3.55	3.65	90.17	92.71
H	0.604	0.65	15.35	16.51
J	1/4-20 UNC FULL			
K	0.380	0.410	9.65	10.41
L	0.185	0.195	4.70	4.95
M	0.275	0.295	6.99	7.49

*Pulse Test:Pulse Width 300 μsec , Duty Cycle 2%



Figure .1- Typical Forward Characteristics

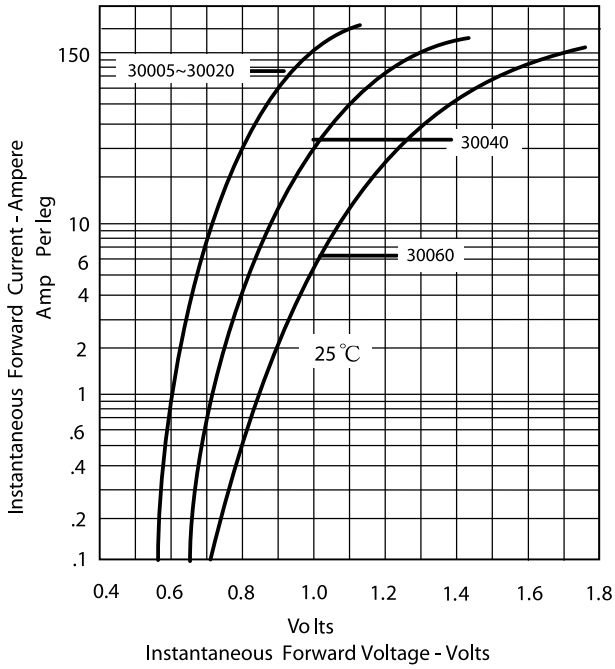


Figure .2- Forward Derating Curve

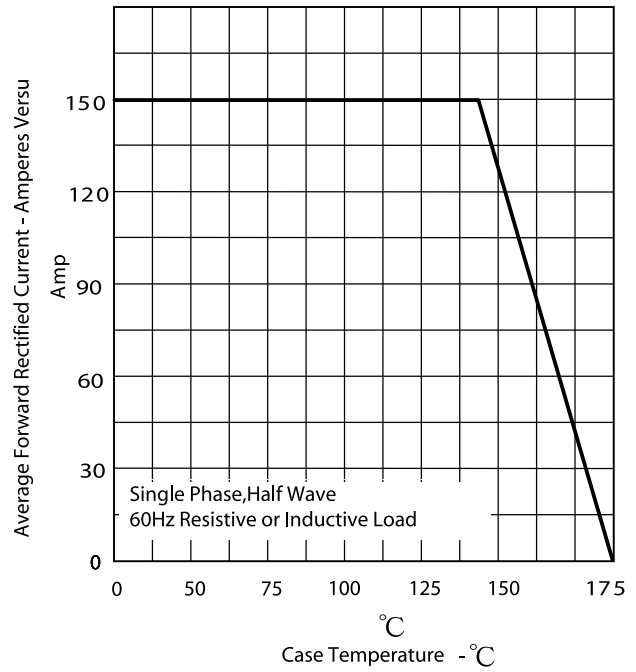


Figure.3- Peak Forward Surge Current

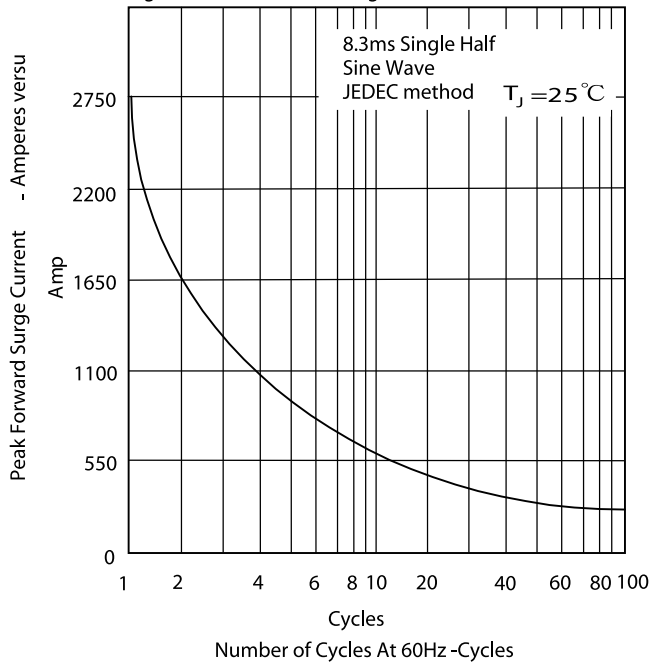


Figure .4 -Typical Reverse Characteristics

