

SUPER FAST DIODE MODULE TYPES 300A / 200-600V

Features

High Surge Capability
Types up to 600V V_{RRM}
Isolation Type Package
Electrically Isolation base plate

Maximum Ratings

Operating Temperature : -55 °C to +175 °C
Storage Temperature : -55 °C to +175 °C

Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MURTA30020(R)	200V	140V	200V
MURTA30040(R)	400V	280V	400V
MURTA300A60(R)	600V	420V	600V

Electrical Characteristics @ 25 °C Unless Otherwise Specified

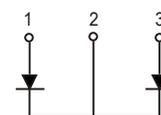
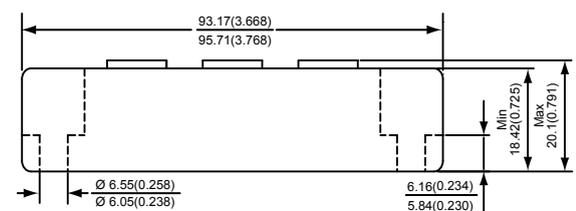
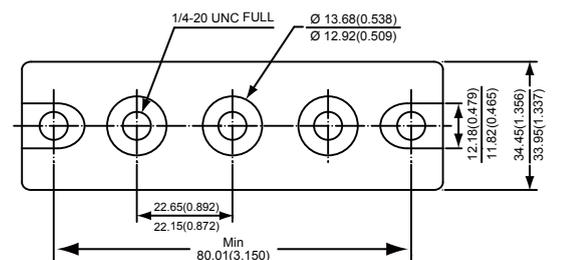
Average Forward Current (Per pkg)	$I_{F(AV)}$	300A	$T_C = 100^\circ\text{C}$
Peak Forward Surge Current (Per leg)	I_{FSM}	2750A	8.3ms, half sine
Maximum Instantaneous Forward Voltage * (Per leg)	V_F	200V: 1.00V 400V: 1.30V 600V: 1.45V	$I_{FM} = 150\text{A};$ $T_J = 25^\circ\text{C}$
Maximum Instantaneous Reverse Current At Rated DC Blocking Voltage (Per leg)	I_R	25 μA 5 mA	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Maximum Reverse Recovery Time (Per leg)	T_{rr}	200~400V: 130ns 600V: 150ns	$I_F = 0.5\text{A}, I_R = 1.0\text{A},$ $I_{RR} = 0.25\text{A}$
Isolation Voltage	V_{isol}	3000 V	A.C. 1minute
Maximum Thermal Resistance Junction To Case (Per leg)	$R_{\theta jc}$	0.40 °C/W	
Weight		193g	

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

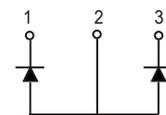
HEAVY THREE TOWER



Dimensions in mm (1 mm = 0.0394")



&N-Type
Common Cathode
MURTA300XX
MURTA300AXX



&P-Type
Common Anode
MURTA300XXR
MURTA300AXXR



Figure .1- Typical Forward Characteristics

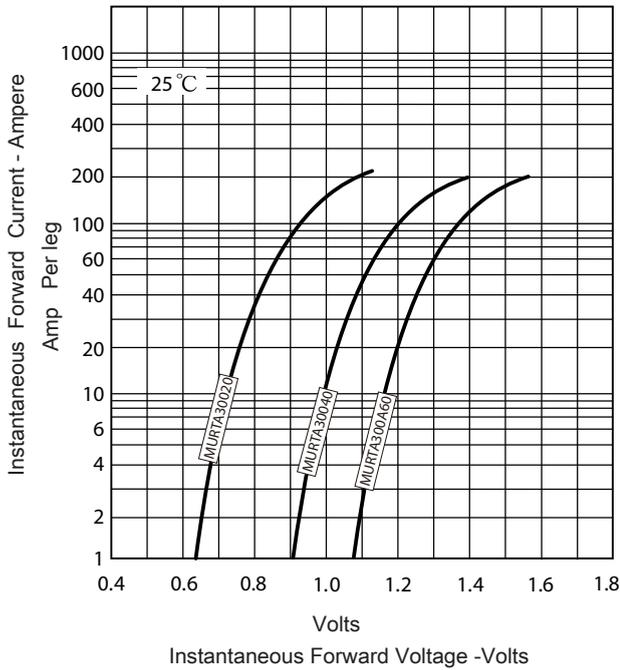


Figure .2- Forward Derating Curve

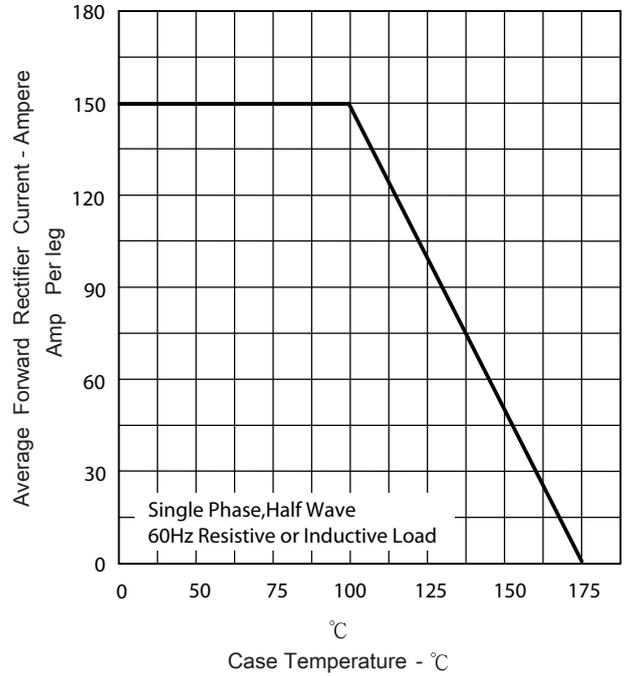


Figure .3- Peak Forward Surge Current

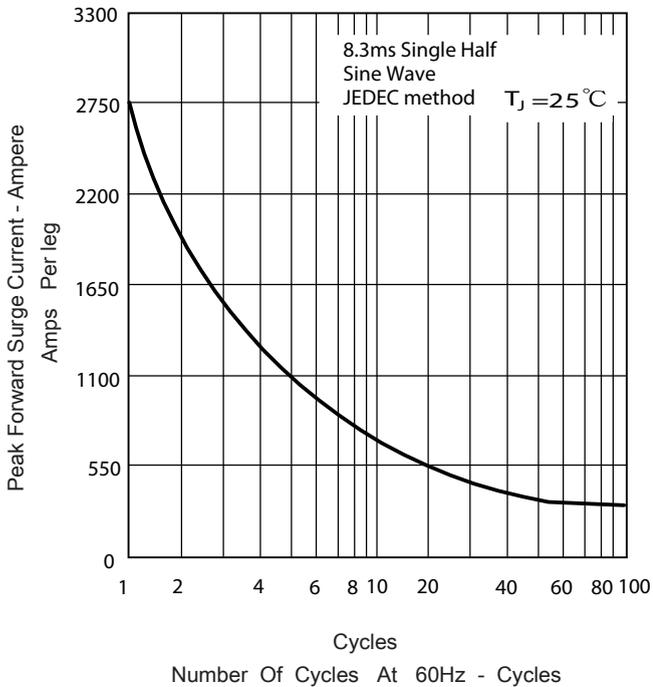
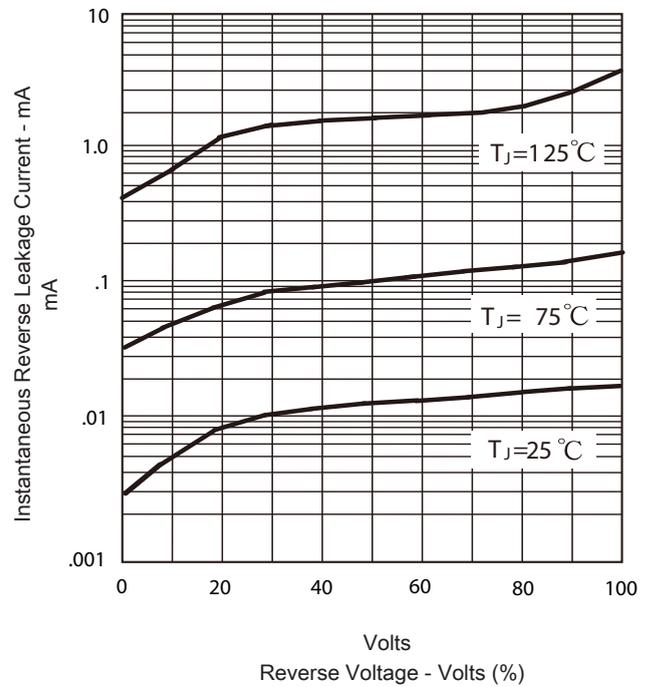


Figure .4- Typical Reverse Characteristics





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