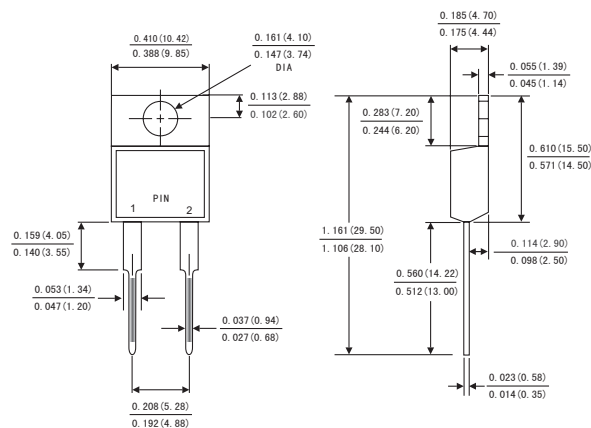


FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Fast switching for high efficiency
- Low forward voltage drop
- Ultrafast Recovery Time
- High surge current capability
- For use in free wheeling, snubber, clamp, inversion welder, PFC, Plating Power Supply
- High temperature soldering guaranteed:260°C/10 seconds, 0.25"(6.35mm)from case
- Component in accordance to RoHS 2011/65/EU



TO-220AC



MECHANICAL DATA

- Case: JEDEC TO-220AC molded plastic body
- Terminals: Lead solderable per MIL-STD-750,method 2026
- Polarity: As marked
- Mounting Position: Any

Dimensions in inches and (millimeters)

ABSOLUT MAXIMUM RATINGS (T_c=25°C unless otherwise specified)

Symbol	Parameter/Test Conditions		Values	Unit
V_R	Maximum DC blocking voltage		1200	V
V_{RRM}	Maximum repetitive peak reverse voltage		1200	V
I_{F(AV)}	Average forward current	T _c =100°C	8	A
I_{F(RMS)}	RMS forward current	T _c =100°C	12	A
I_{FSM}	NON Repetitive Surge Forward Current	T _j =45°C, t=10ms, 50HZ, Sine	60	A
P_D	Power Dissipation		62	W
T_J	Junction temperature		-55 to +150	°C
T_{stg}	Storage temperature range		-55 to +150	°C
Torque	Module to Sink	Recommended (M3)	1.1	Nm
R_{θJC}	Junction to Case Thermal Resistance		2.0	°C/W

MUR8120

ELECTRICAL CHARACTERISTICS (T_C=25°C unless otherwise specified)

Symbol	Parameter/Test Conditions		Min.	Typ.	Max.	Unit
I _{RM}	Maximum Reverse Leakage Current	V _R =1200V			10	μA
I _{RM}	Maximum Reverse Leakage Current	V _R =1200V, T _J =125°C			1	mA
V _F	Forward Voltage	I _F =8A		2.8	3.2	V
V _F	Forward Voltage	I _F =8A, T _J =125°C		2.3		V
t _{rr}	Reverse Recovery Time (I _F =1A, dI _F /dt=-200A/μs, V _R =30V)			20	25	ns
t _{rr}	Reverse Recovery Time (I _F =0.5A, I _R =1A, I _{RR} =0.25A)			35	40	ns
t _{rr}	Reverse Recovery Time	I _F =8A, V _R =600V dI _F /dt=-200A/μs		60		ns
I _{RRM}	Maximum Reverse Recovery Current			3		A
t _{rr}	Reverse Recovery Time	I _F =8A, V _R =600V dI _F /dt=-200A/μs, T _J =125°C		220		ns
I _{RRM}	Maximum Reverse Recovery Current			5		A

RATINGS AND CHARACTERISTIC CURVES

FIG.1-Forward Voltage Drop vs Forward Current

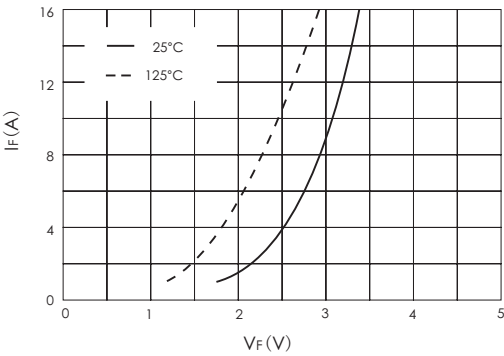
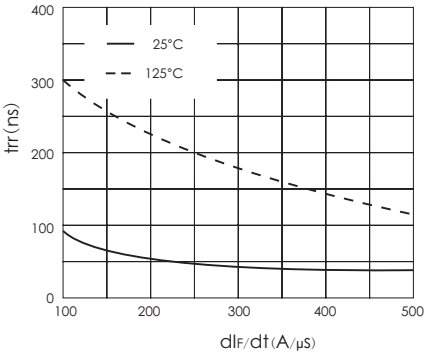


FIG.2-Reverse Recovery Time vs dI_F/dt



MUR8120

FIG.3-Reverse Recovery Current vs di_F/dt

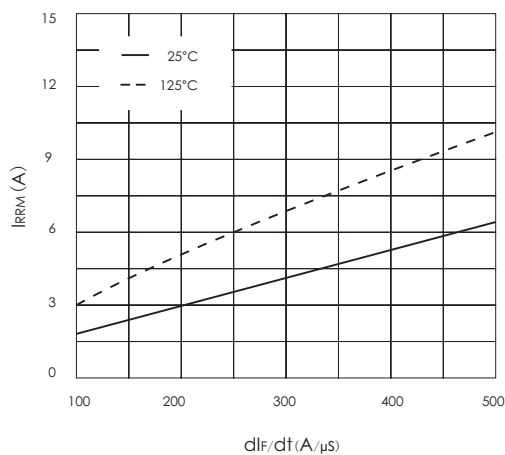


FIG.4-Reverse Recovery Charge vs di_F/dt

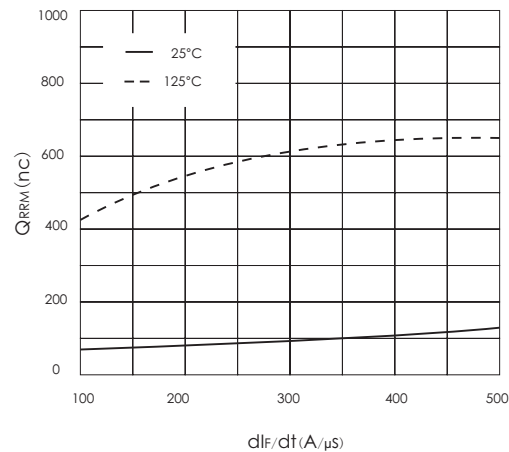


FIG.5-Forward Current vs Case temperature

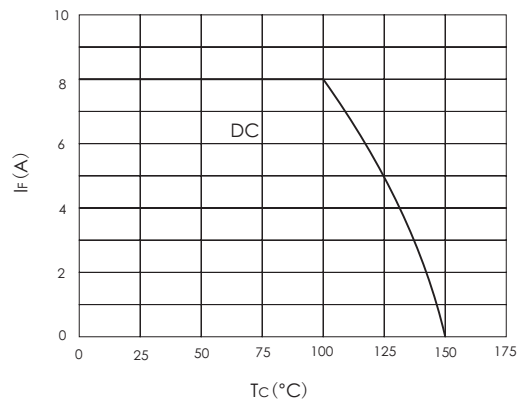


FIG.5-Forward Current vs Case temperature

