



Features

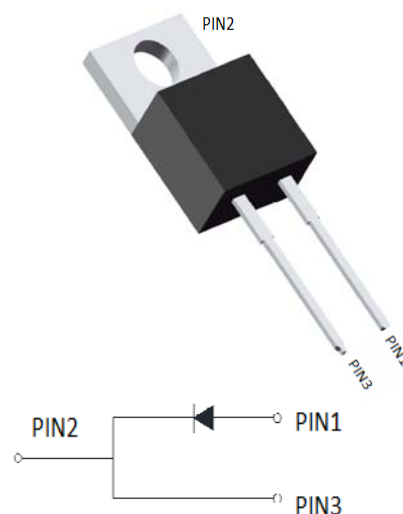
- High frequency operation
- High surge forward current capability
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability

Typical Applications

Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.

Mechanical Data

- **Package:** TO-220AC
- Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked



■Maximum Ratings (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MUR8100
Device marking code			MUR8100
Repetitive Peak Reverse Voltage	VRRM	V	1000
Average Rectified Output Current @60Hz sine wave, R-load, T _c =99°C	I _O	A	8
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T _a =25°C	I _{FSM}	A	100
Current Squared Time @1ms≤t≤8.3ms T _j =25°C,	I ² t	A ² s	41
Storage Temperature	T _{stg}	°C	-55 ~ +150
Junction Temperature	T _j	°C	-55 ~ +150

■Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MUR8100
Maximum instantaneous forward voltage drop per diode	V _{FM}	V	I _{FM} =8.0A	2.25
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM1}	uA	V _{RM} =V _{RRM} T _a =25°C	10
	I _{RRM2}		V _{RM} =V _{RRM} T _a =125°C	100
Reverse Recovery Time	T _{rr}	ns	I _F =0.5A I _{RR} =0.25A I _{RM} =1A	50

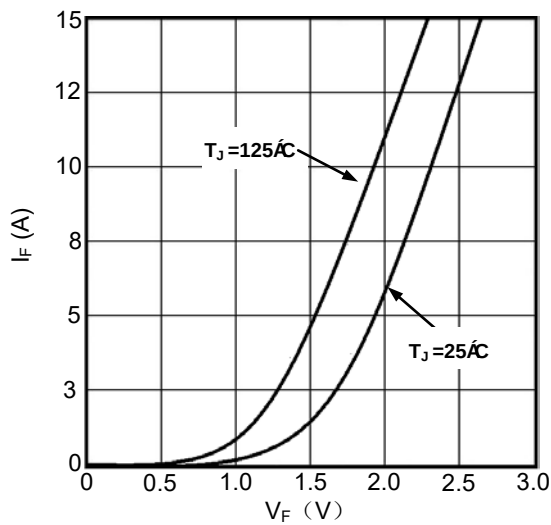


Fig1. Forward Voltage Drop vs Forward Current

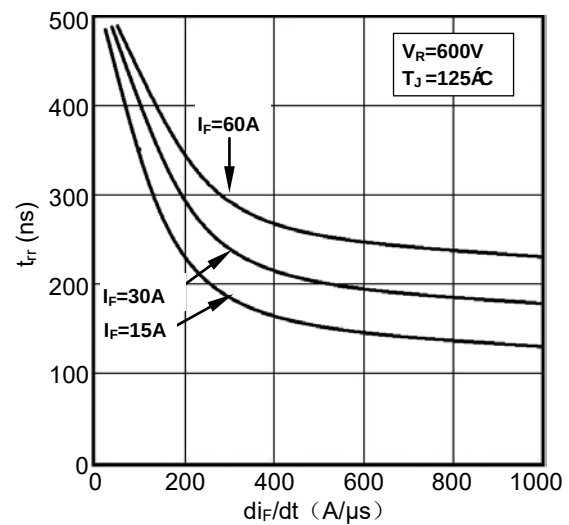
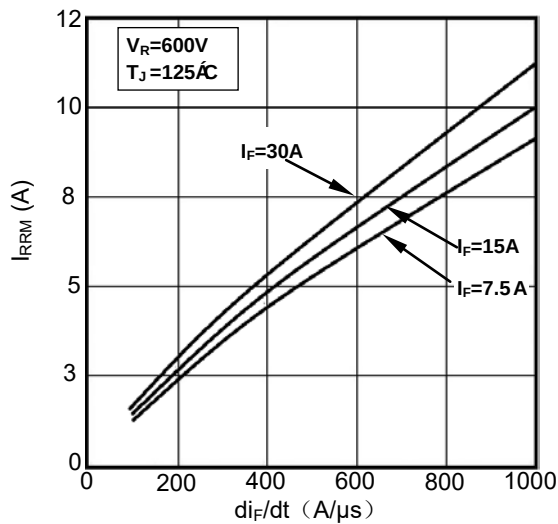
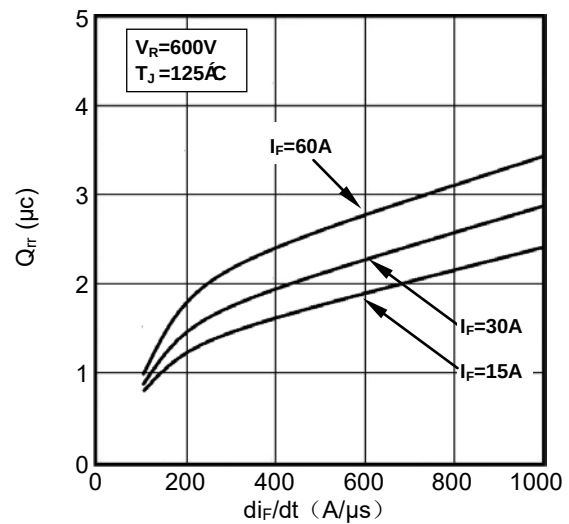
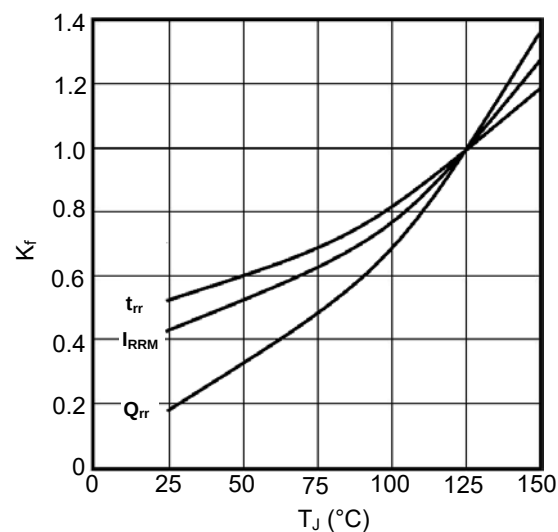

Fig2. Reverse Recovery Time vs di_F/dt

Fig3. Reverse Recovery Current vs di_F/dt

Fig4. Reverse Recovery Charge vs di_F/dt


Fig5. Dynamic Parameters vs Junction Temperature

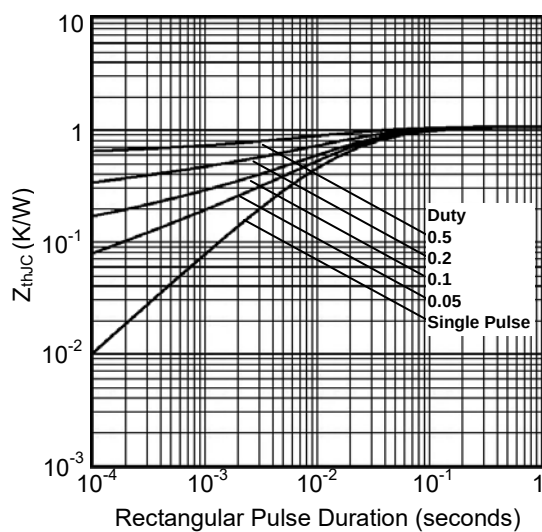


Fig6. Transient Thermal Impedance

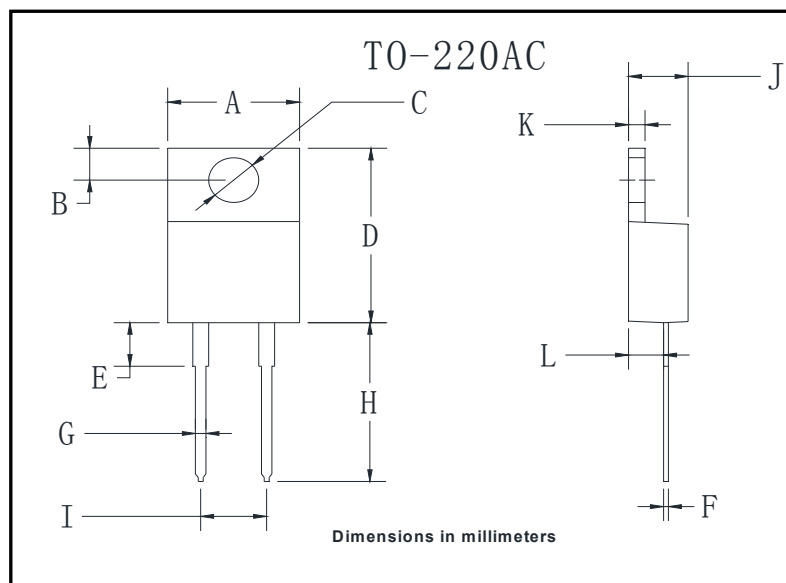
■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	MUR8100
Thermal Resistance	Between junction and case	R _{θJ-c}	°C/W	4.0

■ Ordering Information (Example)

PREFERRED P/N	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MUR8100	Approximate 0.31	2500	2500	25000	Reel

■ Outline Dimensions



TO-220AC		
Dim	Min	Max
A	9.5	10.9
B	2.22	3.27
C	3.34	4.31
D	14.5	15.5
E	3.16	4.46
F	0.28	0.64
G	0.68	0.94
H	13.06	14.62
I	4.55	5.60
J	4.04	5.1
K	1.14	1.4
L	2.14	3.19

Packge	Packing	Box Size L×W×H(mm)	Quatity(pcs/box)	Carton Size L×W×H(mm)	Quatity(pcs/carton)
TO-220AC	50pcs/Tube	558×148×38	1000	565×225×175	5000