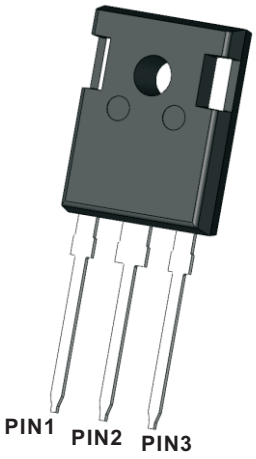
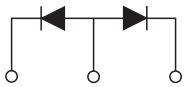
Fast Recovery Epi Diodes
Reverse Voltage - 200~600 Volts
Forward Current - 80 Amperes

TO-247-3L



RoHS COMPLIANT



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
- Solder dip 275 °C max. 7s, per JESD 22-B106

Mechanical data

- Case: TO-247-3L
- Approx. Weight: 6.3g (0.22oz)
- Lead free finish, RoHS compliant
- Case Material: “Green” molding compound, UL flammability classification 94V-0,“Halogen-free”.

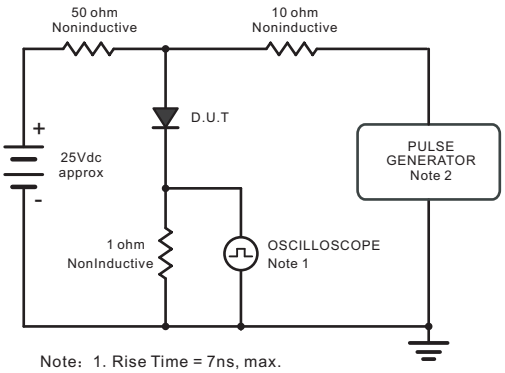
Maximum Ratings And Electrical Characteristics

Ratings At 25℃ Ambient Temperature Unless Otherwise Specified

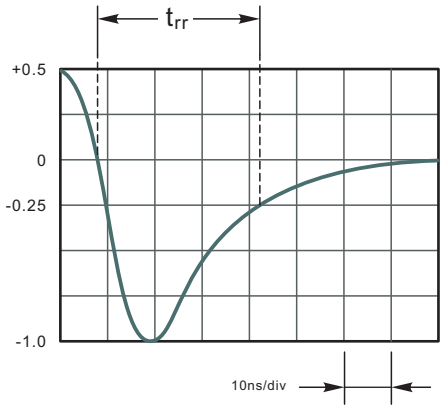
Parameter	Symble	MUR8020WA	MUR8040WA	MUR8060WA	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	200	400	600	V
Maximum RMS voltage	V_{RMS}	140	280	420	V
Maximum DC Blocking Voltage	V_{DC}	200	400	600	V
Maximum Average Forward Rectified Current — Per leg Per device	$I_{F(AV)}$	40 80			A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)(Per leg)	I_{FSM}	600			A
Max Instantaneous Forward Voltage at 40 A (Per leg)	V_F	1.0	1.3	1.8	V
Maximum DC Reverse Current T_a = 25°C at Rated DC Reverse Voltage T_a =125°C	I_R	10 500			uA
Maximum Reverse Recovery Time (1)	trr	50			ns
Typical Thermal Resistance	$R_{\theta JC}$	0.8			°C/W
Operating Junction Temperature Range	T_j	-55 ~ +150			°C
Storage Temperature Range	T_{stg}	-55 ~ +150			°C

NOTE 1:Reverse recovery test conditions IF=0.5A,IR=1.0A, Irr=0.25A

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram



Note: 1. Rise Time = 7ns, max.
Input Impedance = 1megohm,22pF.
2. Ries Time =10ns, max.
Source Impedance = 50 ohms.



Set time Base for 10ns/div

Fig.2 Forward Current Derating Curve

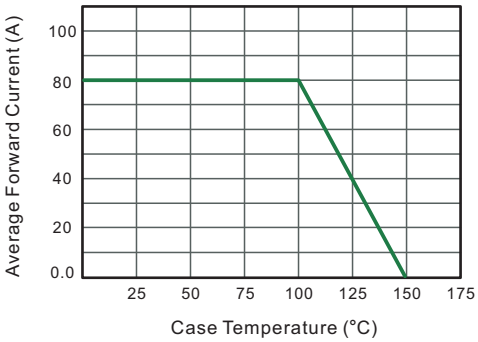


Fig.3 Typical Instaneous Reverse Characteristics

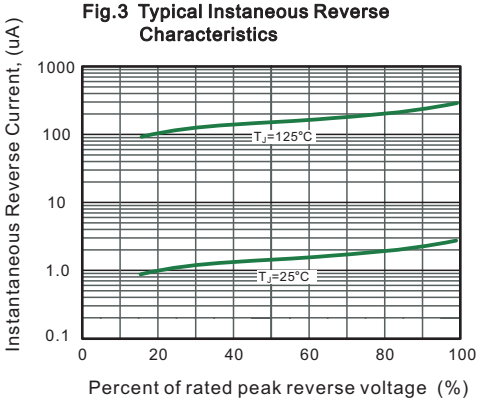


Fig.4 Typical Forward Characteristic

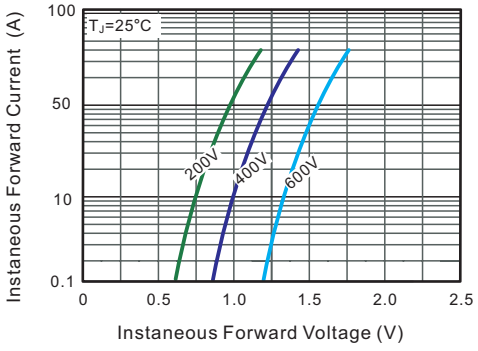
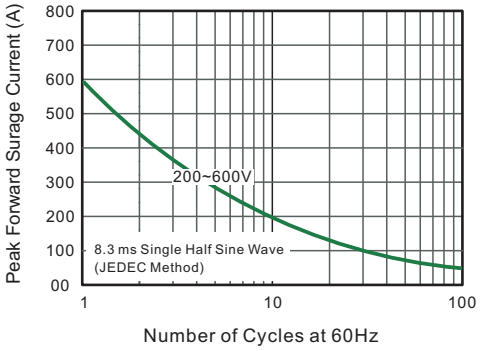
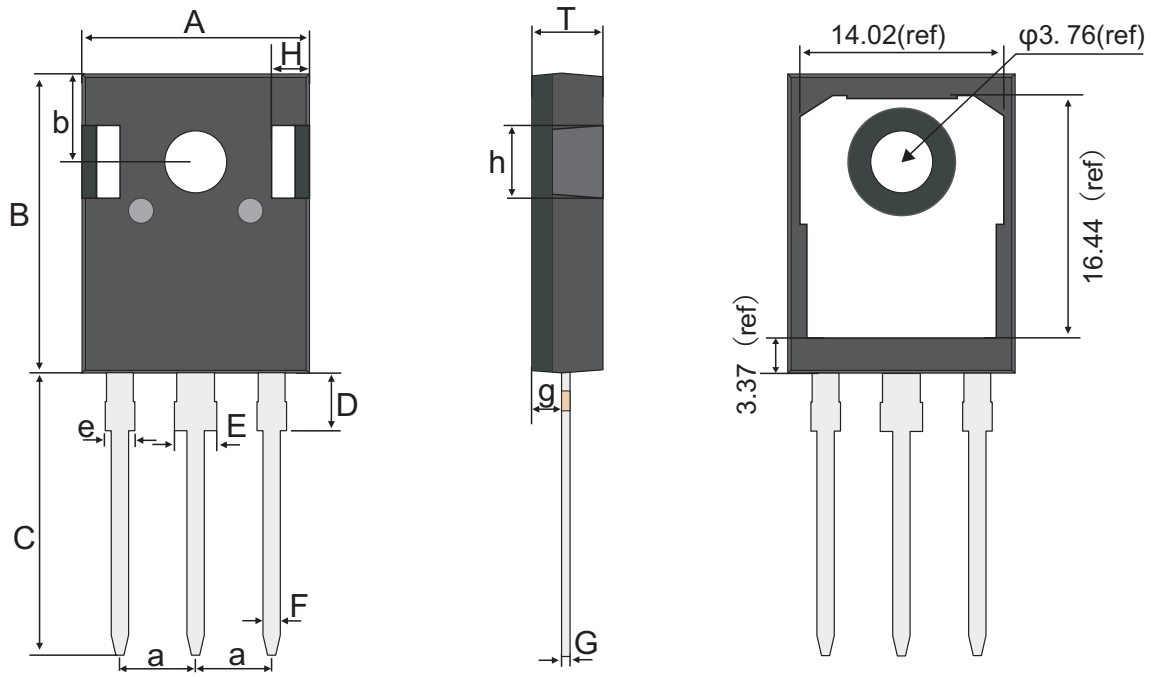


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current



Package Outline
Through Hole Package ; 3 leads

TO-247-3L



TO-247-3L mechanical data

UNIT		A	a	B	b	C	D	E	e	F	G	g	H	h	T
mm	max	16.01	5.54	21.18	6.26	20.2	4.25	3.25	2.2	1.3	0.7	2.49	2.71	5.37	5.2
	typ	15.81	5.44	20.98	6.16	20.0	4.15	3.10	2.05	1.2	0.6	2.39	2.51	5.17	5.0
	min	15.61	5.34	20.78	6.06	19.8	4.05	2.95	1.9	1.1	0.5	2.29	2.31	4.97	4.8
mil	max	630	218	834	246	795	167	128	87	51	28	98	107	211	205
	typ	622	214	826	243	787	163	122	81	47	24	94	99	204	197
	min	615	210	818	239	780	159	116	75	43	20	90	91	196	189

Marking

Type number	Marking code
MUR8020WA	MUR8020WA
MUR8040WA	MUR8040WA
MUR8060WA	MUR8060WA

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