

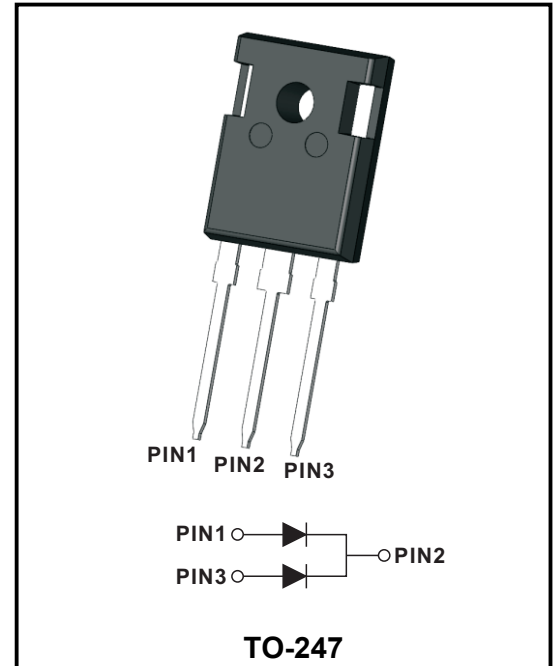
Fast Recovery Epi Diodes
Reverse Voltage - 200~600 V
Forward Current - 80 A

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
- ◆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°C Ambient Temperature Unless Otherwise Specified

Parameter	Symble	MUR8020PT	MUR8040PT	MUR8060PT	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}	800	600		A
Max Instantaneous Forward Voltage at 40 A (Per leg)	V_F	1.2	1.6	1.8	V
Maximum DC Reverse Current at Rated DC Reverse Voltage $T_a = 25^{\circ}C$ $T_a = 125^{\circ}C$	I_R	10 500			uA
Maximum Reverse Recovery Time ⁽¹⁾	trr	50		55	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

Ratings and Characteristic Curves

Fig.1 Forward Current Derating Curve

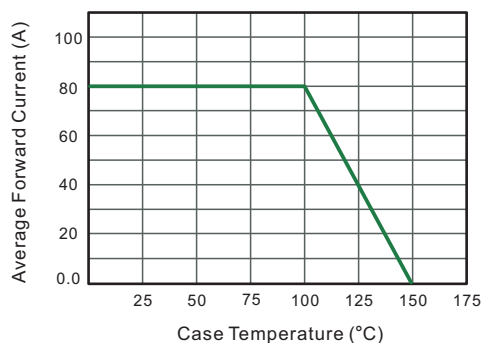


Fig.2 Typical Instantaneous Reverse Characteristics

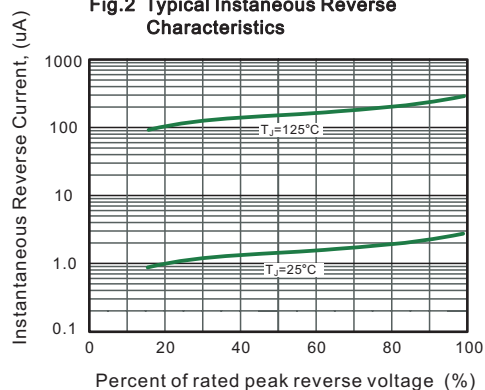


Fig.3 Typical Forward Characteristic

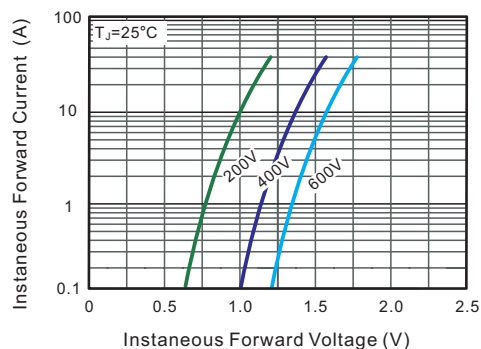
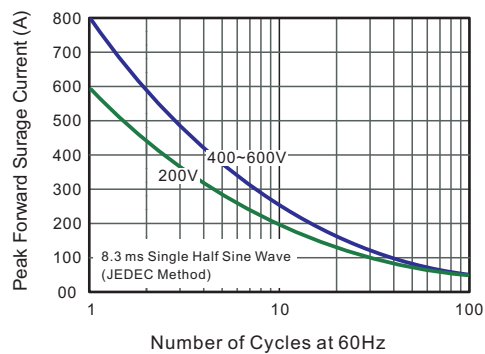
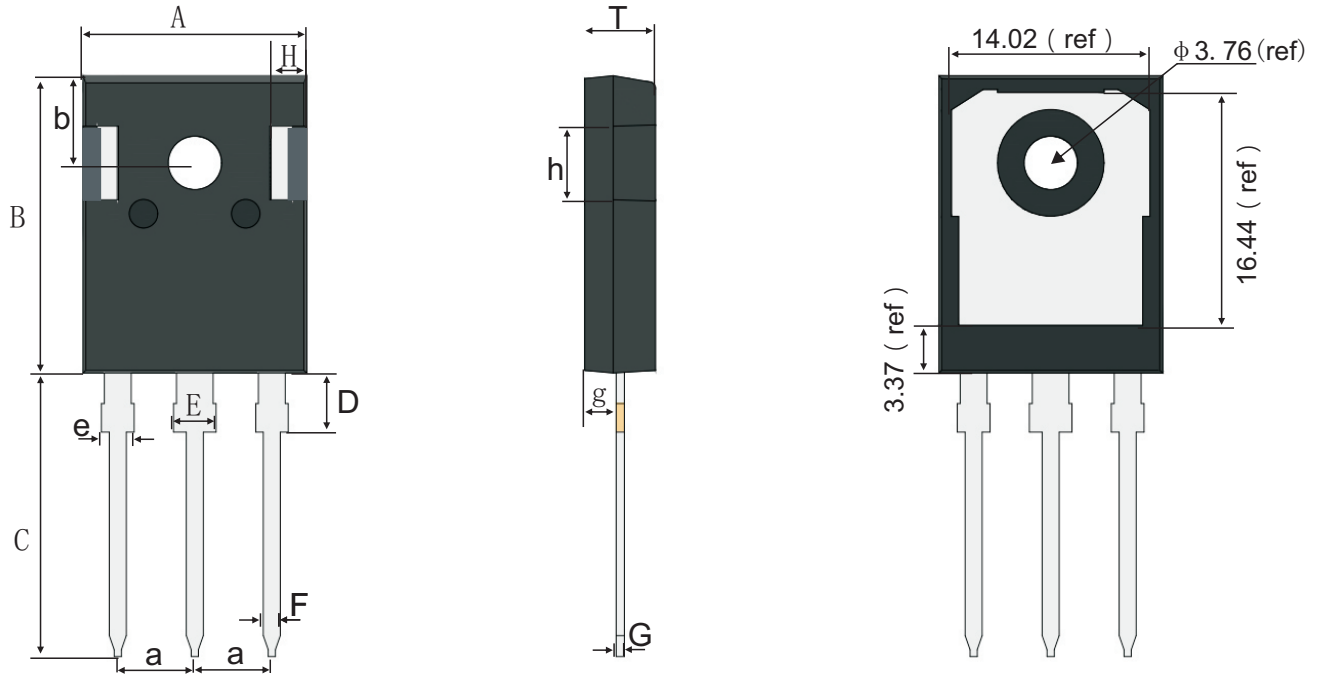


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



Package Outline Dimensions Millimeters

Through Hole Package , 3 leads



TO-247

UNIT		A	B	b	C	D	E	e	F	g	G	T	t	a	H	h
mm	max	16.01	21.18	6.26	20.2	4.25	3.15	2.20	1.30	2.49	0.70	5.20	2.21	5.54	2.71	5.37
	typ	15.81	20.98	6.16	20.0	4.15	3.00	2.05	1.20	2.39	0.60	5.00	2.01	5.44	2.51	5.17
	min	15.61	20.78	6.06	19.8	4.05	2.85	1.90	1.10	2.29	0.50	4.80	1.81	5.34	2.31	4.97
mil	max	630	834	246	795	167	124	87	51	98	28	205	87	218	107	211
	typ	622	826	243	787	163	118	81	47	94	24	197	79	214	99	204
	min	615	818	239	780	159	112	75	43	90	20	189	71	210	91	196