



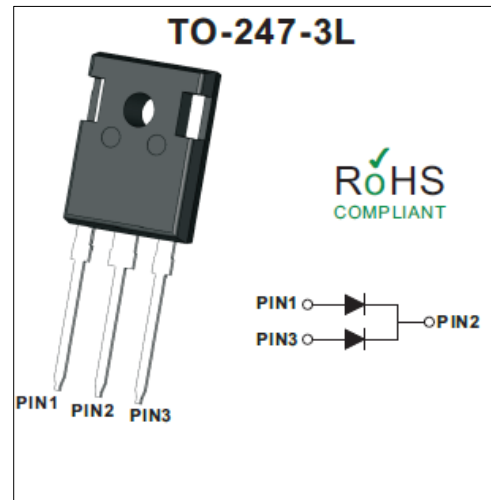
Ultra-fast Recovery FRED Diodes Reverse Voltage 200 to 600 Volts Forward Current 15A x 2

Features

- FRED Process chip
- 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 :** Case: TO-247-3L
- **Terminals :** Lead solderable per MIL-STD-202, Method 208
- **Lead free finish, RoHS compliant**
- **Case Material:** "Green" molding compound, UL flammability classification 94V-0, "Halogen-free".
- **Weight :** 6.3gram



Maximum Ratings Characteristics

T_A = 25°C unless otherwise specified

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter		Symbol	MUR3020LWD	MUR3040LWD	MUR3060LWD	Unit
Maximum Repetitive 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	I _{F(AV)}	15			A
	Per Device	I _{F(AV)}	30			
Peak Forward Surge Current 8.3ms Single Half sine Wave Superimposed on Rated Load		I _{FSM}	300			A
Maximum Instantaneous Forward Voltage at 30A		V _F	1.0	1.3	1.6	V
Maximum Reverse Recovery Time ⁽¹⁾		trr	35			ns
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _a = 25°C	I _R	10			uA
	T _a = 125°C		500			
Maximum Thermal Resistance Junction to Case		R _{θJc}	4			°C/W
Operating Junction temperature Range		T _J	-55 ~ +125			°C
Storage Temperature Range		T _{STG}	-55 ~ +150			°C

Note

(1) I_F=1.0A, I_{rr}=0.25A



Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise specified)

Fig.1 Forward Current Derating Curve

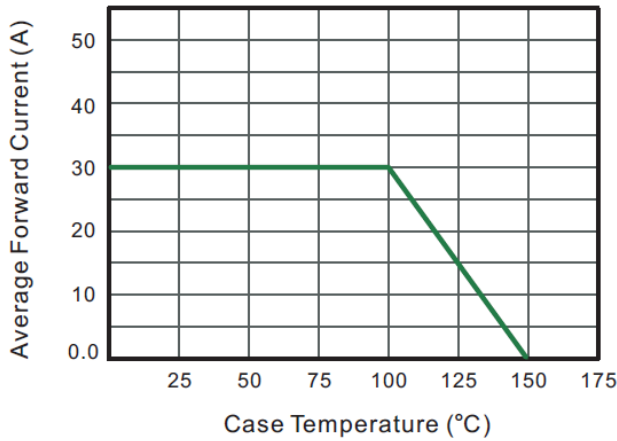


Fig.2 Typical Instantaneous Reverse Characteristics

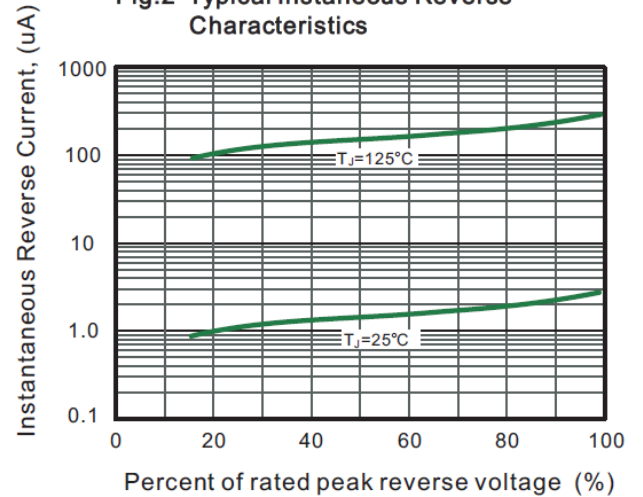


Fig.3 Typical Forward Characteristic

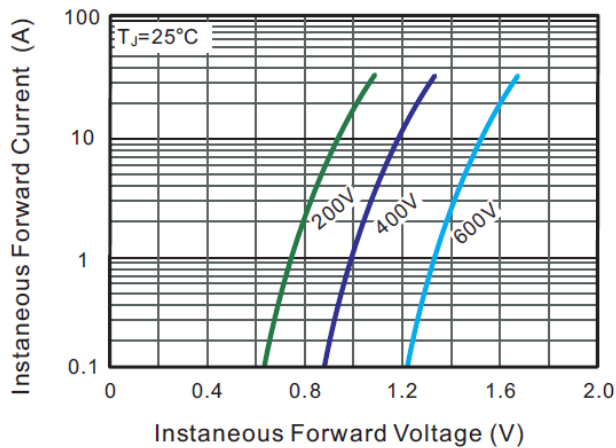
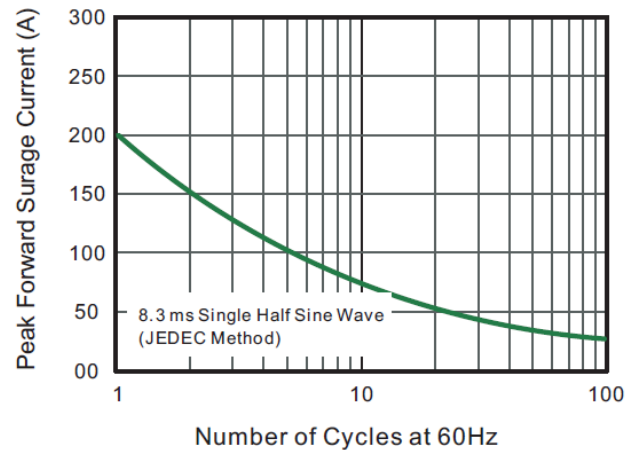
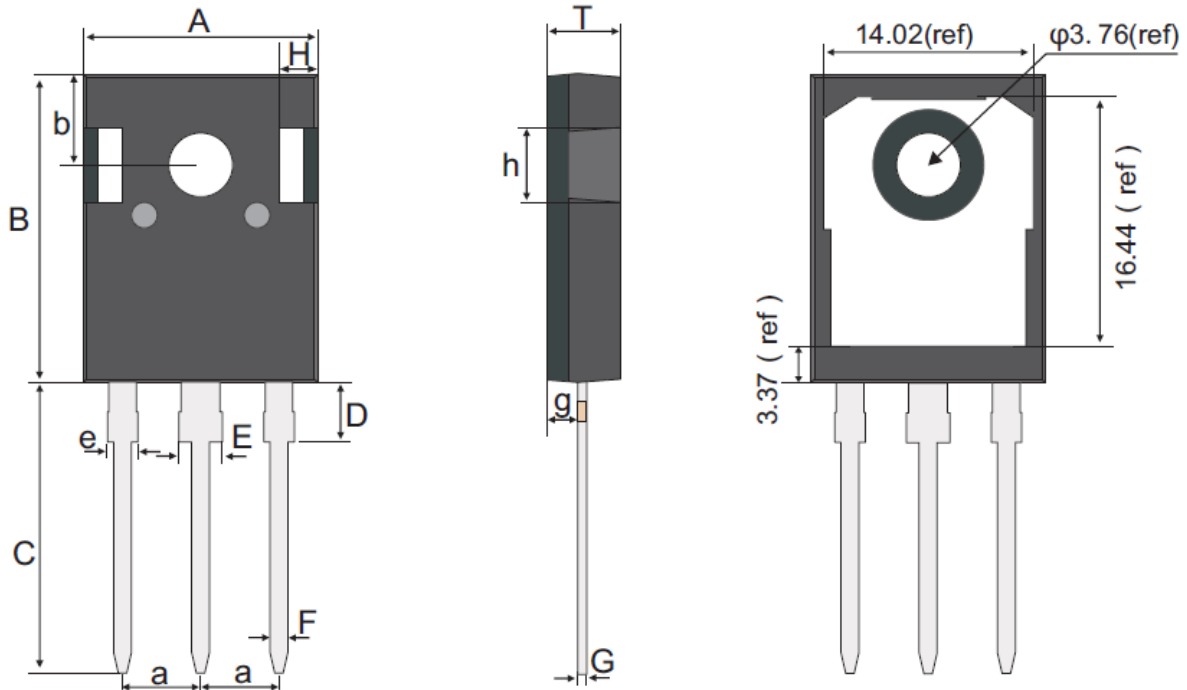


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current





Package dimension : TO247-3L



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

Ordering Information

Part No	Package	Packing	Finish	Halogen	Packing Unit
MUR3060LWD MUR3040LWD MUR3020LWD	TO-247-3L	TUBE	Sn	Free	Tube : 30ea Inner : 600ea MOQ : 1,200ea



Revision History

No	Date	Contents
0	2020-04-12	Initial Brief Datasheet Release

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