

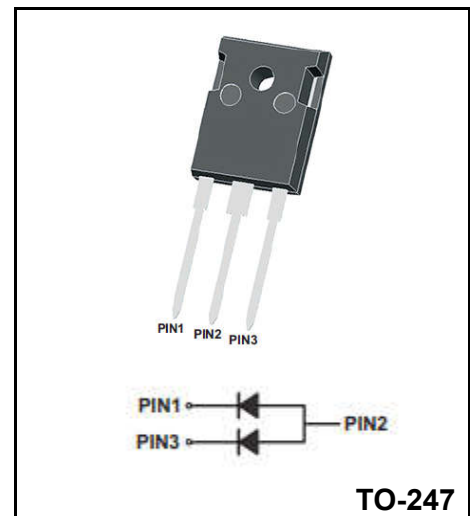
Fast Recovery Epi Diodes

Reverse Voltage - 600 V

Forward Current - 30 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 (Per Leg) At Ta=25°C Unless Otherwise Specified

Parameter		Symbols	Value	Units
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	600	V
Maximum RMS voltage		V_{RMS}	420	V
Maximum DC Blocking Voltage		V_{DC}	600	V
Maximum Average Forward Rectified Current @Tc=100°C	Per Leg	$I_{F(AV)}$	15	A
	per device		30	
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)		I_{FSM}	300	A
Instantaneous forward voltage at 15A	per leg	V_F	1.60	V
Maximum instantaneous reverse current at rated	Ta=25°C	I_R	10	uA
DC blocking voltage	Ta=125°C		500	
Maximum Reverse Recovery Time NOTE 1		t_{rr}	35	nS
Maximum Thermal Resistance Junction To Case		$R_{\theta JC}$	4	°C/W
Operation Junction Temperature and Storage Temperature		T_J, T_{STG}	-55 ~ +150	°C

Note1: Reverse recovery test conditions IF=0.5A, IR=1.0A, Irr=0.25A

Ratings and Characteristic Curves

Fig.1 TYPICAL FORWARD CURRENT DERATING CURVE

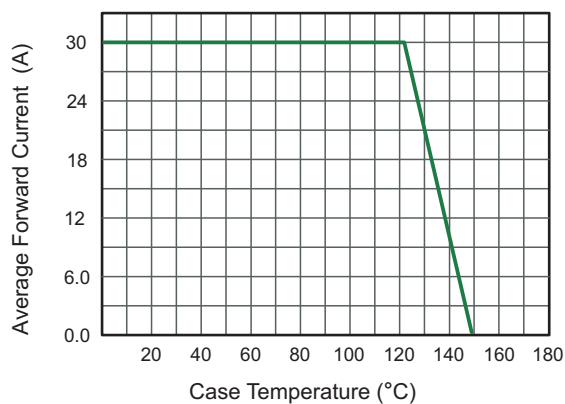


Fig.2 Typical Reverse Characteristics

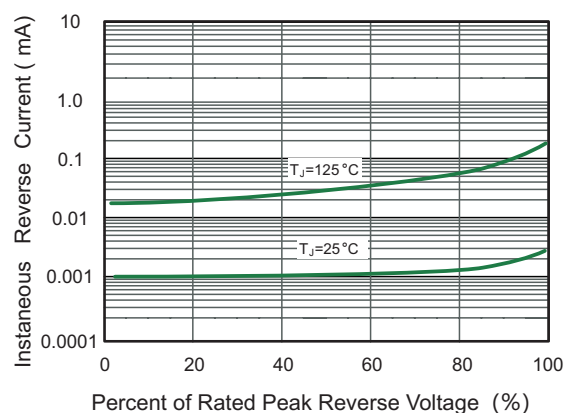


Fig.3 Typical Forward Characteristics

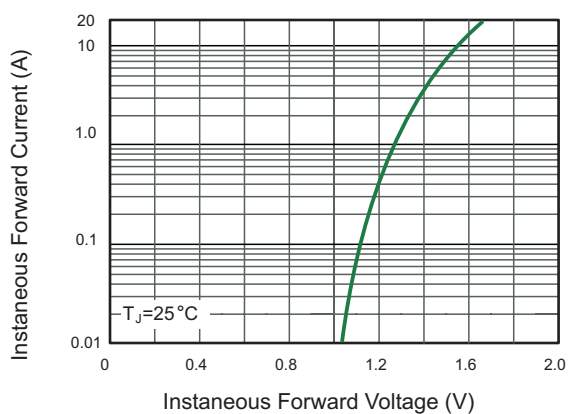
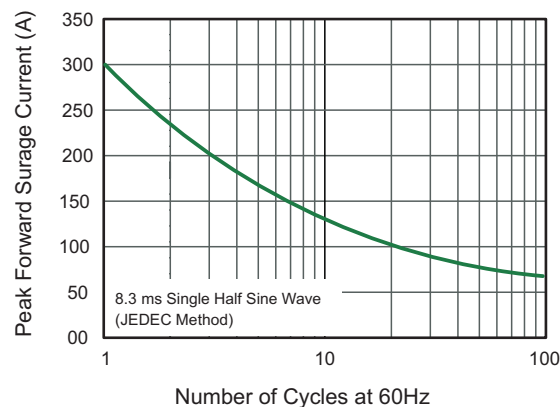
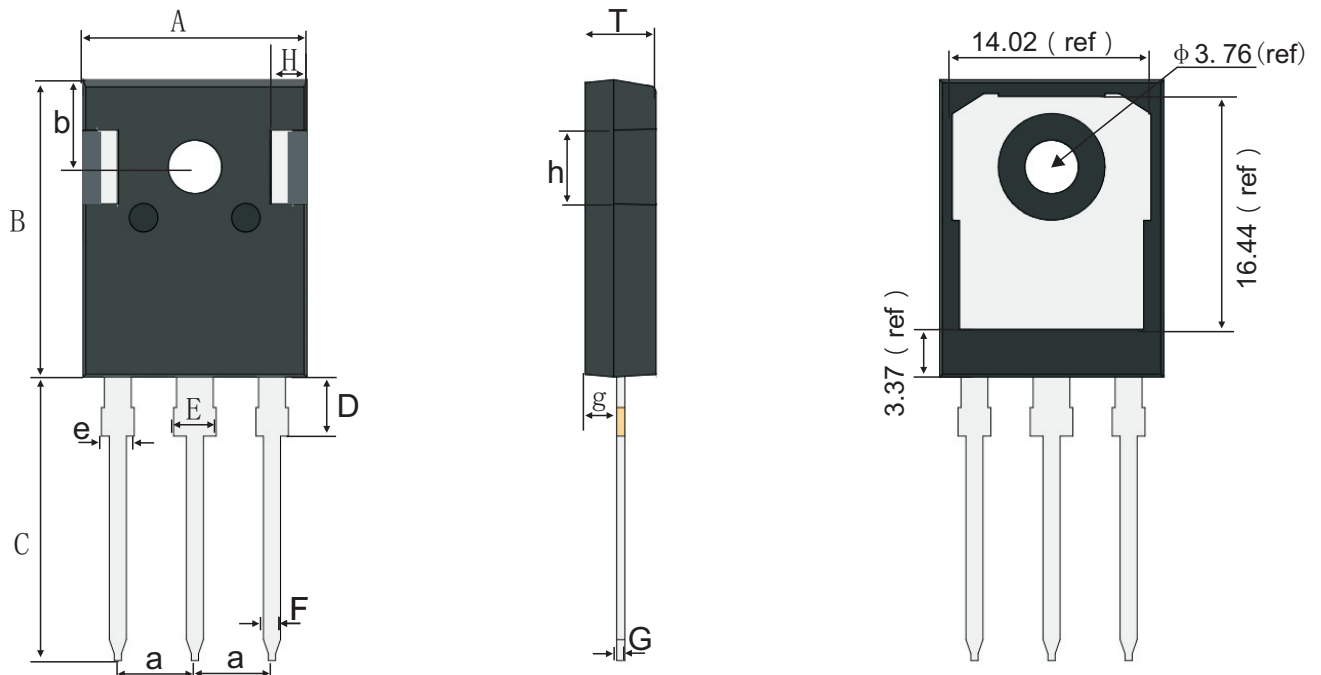


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE

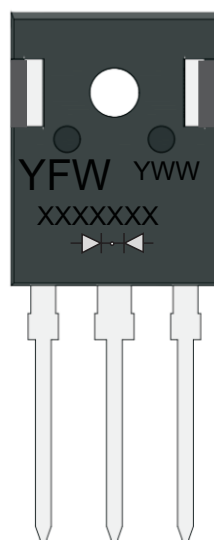
Plastic surface mounted package; 3 leads



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

MARKING DIAGRAM



YWW: Date Code
Y: Years(0~9)
WW: Week
XXXXXXX : Product name
(NOTE: The weekly code is based on the actual number of weeks in the calendar year.)