Fast Recovery Epi Diodes

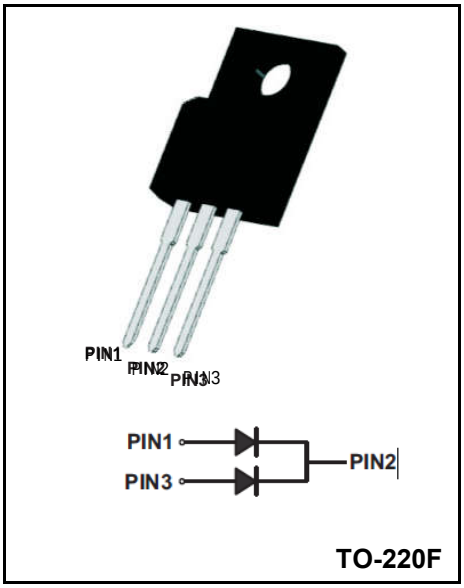
Reverse Voltage - 200 V

Forward Current - 30 A

lead-free ROHS

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 ℃ max. 7s, per JESD 22-B106



Mechanical Data

- Case: TO-220F
- Approx. Weight: 1.7g (0.063oz)
- 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}	200	V
Maximum RMS voltage		V_{RMS}	140	V
Maximum DC Blocking Voltage		V_{DC}	200	V
Maximum Average Forward Rectified Current @Tc=100℃	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	1.0	V
Maximum instantaneous reverse current at rated DC blocking voltage	Ta=25℃	I_R	10	uA
	Ta=125℃		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

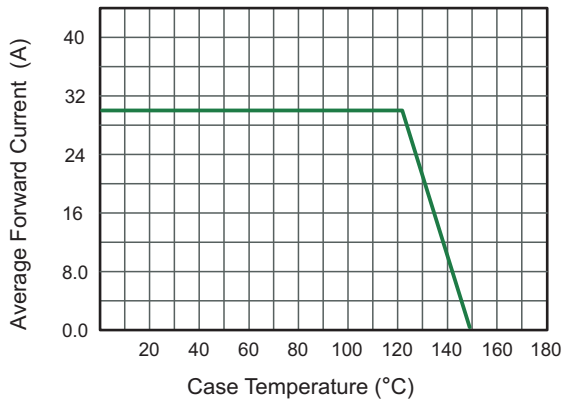


Fig.2 Typical Reverse Characteristics

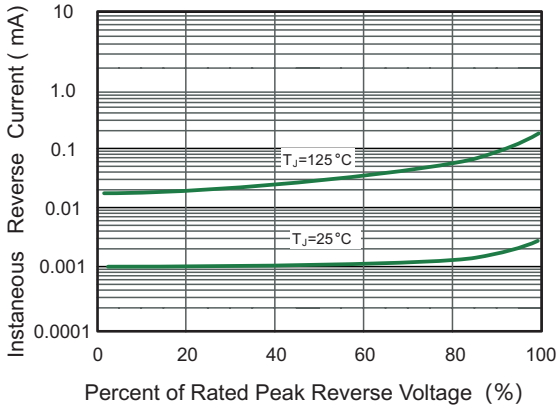


Fig.3 Typical Forward Characteristics

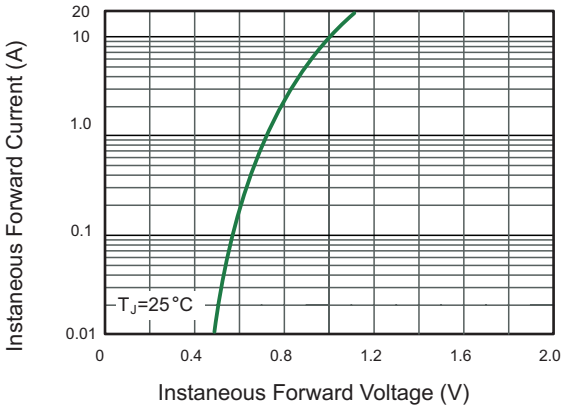
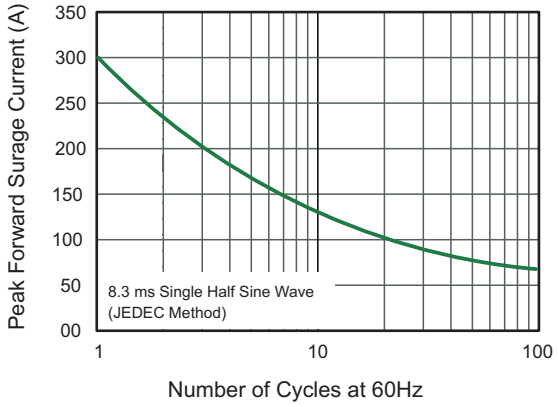
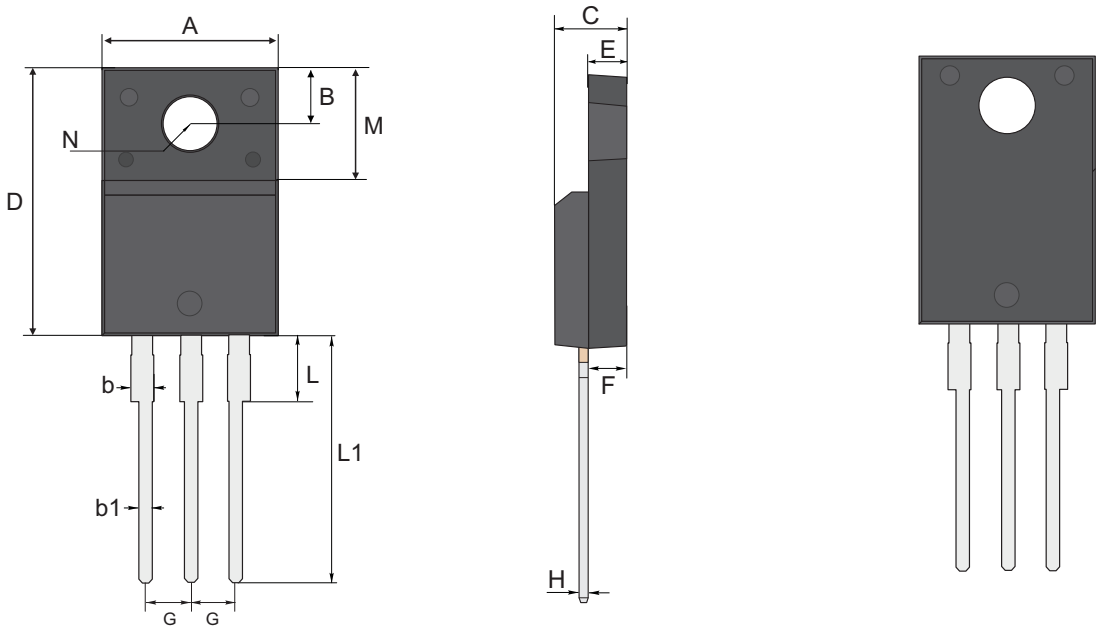


Fig.4 Maximum Non-Repetitive Peak Forward Surage Current



Package Outline

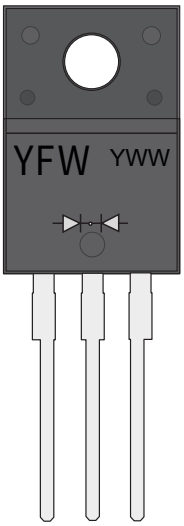
Plastic surface mounted package; 3 leads



TO-220F

UNIT		A	B	b	b1	C	D	E	F	G	H	L	L1	M	N
mm	max	10.28	3.37	1.34	0.9	4.9	16.07	2.74	2.74	2.64	0.60	2.85	13.7	6.88	3.18 TYPICAL
	typ	10.18	3.27	1.24	0.8	4.7	15.87	2.54	2.54	2.54	0.50	2.65	13.5	6.68	
	min	10.08	3.17	1.14	0.7	4.5	15.67	2.34	2.34	2.44	0.40	2.45	13.3	6.48	
mil	max	405	133	53	35	193	630	108	108	104	27	112	539	271	125 TYPICAL
	typ	401	129	49	31	185	590	100	100	100	20	104	531	267	
	min	397	125	45	28	177	580	92	92	96	16	96	524	255	

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.)