

**JEFR1608FPCT**  
**EPI FAST RECOVERY RECTIFIER**

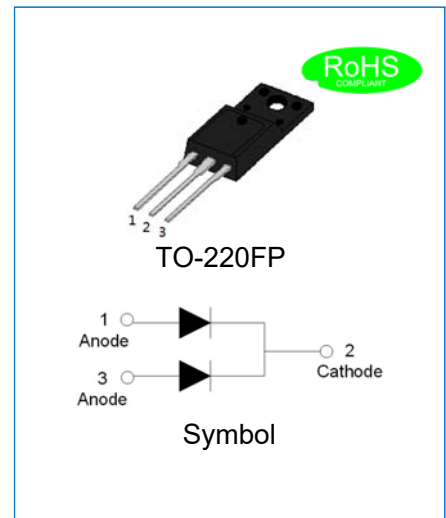
Rev.1.3

**DESCRIPTION**

- ✧ Plastic package has underwriters laboratory flammability classification 94V-0
- ✧ Lead free in comply with EU RoHS 2011/65/EU directives
- ✧ Low reverse leakage current
- ✧ Fast recovery time and soft recovery characteristics
- ✧ Low recovery loss

**MECHANICAL DATA**

- ✧ Case: TO-220FP molded plastic over passivated junction
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Weight: 2.07gram

**ABSOLUTE MAXIMUM RATING** (Rating at 25°C case temperature unless otherwise specified.)

Parameter	Symbol	JEFR1608FPCT	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	800	V
Maximum DC blocking voltage	$V_{DC}$	800	V
Maximum average forward current at $T_C=100^{\circ}\text{C}$	$I_{F(AV)}$	16	A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load(per diode)	$I_{FSM}$	125	A
Junction temperature and storage temperature range	$T_J, T_{stg}$	-55 to +150	$^{\circ}\text{C}$

**ISOLATION CHARACTERISTICS**

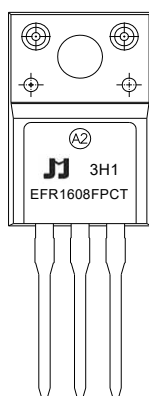
Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
$V_{isol(RMS)}$	RMS isolation voltage	50Hz $\leq f \leq$ 60Hz; RH $\leq$ 65%; from all pins to external heatsink; sinusoidal waveform; clean and dust free	-	-	2500	V
$C_{isol}$	Isolation capacitance	from cathode to external heatsink	-	10	-	pF

**ELECTRICAL CHARACTERISTICS**(Rating at 25°C case temperature unless otherwise specified.)

Parameter		Symbol	Min.	Typ.	Max.	Unit
Forward voltage	$I_F=8A, T_J=25^{\circ}C$	$V_F$	-	-	1.7	V
	$I_F=8A, T_J=150^{\circ}C$		-	-	1.5	
Reverse current	$V_R=800V, T_J=25^{\circ}C$	$I_R$	-	-	5	$\mu A$
	$V_R=800V, T_J=150^{\circ}C$		-	-	200	
Reverse recovery time	$I_F=0.5A, I_R=1A, I_{rr}=0.25A$	$t_{rr}$	-	-	75	ns
	$I_F=1A, V_R=30V, \frac{dI_F}{dt}=100A/\mu s, T_J=25^{\circ}C$		-	-	55	

**THERMAL RESISTANCES**

Symbol	Parameter	Min.	Typ.	Max.	Unit
$R_{th(j-c)}$	Thermal resistance from junction to case	-	2	-	$^{\circ}C/W$

**MARKING**


EFR	EPI Fast Recovery Rectifier
16	$I_{F(AV)}=16A$
08	$V_{RRM}=800V$
FP	Package: TO-220FP
CT	Common cathode

xH1: Month, 1、2、3 ~ 9、A、B、C

3x1:

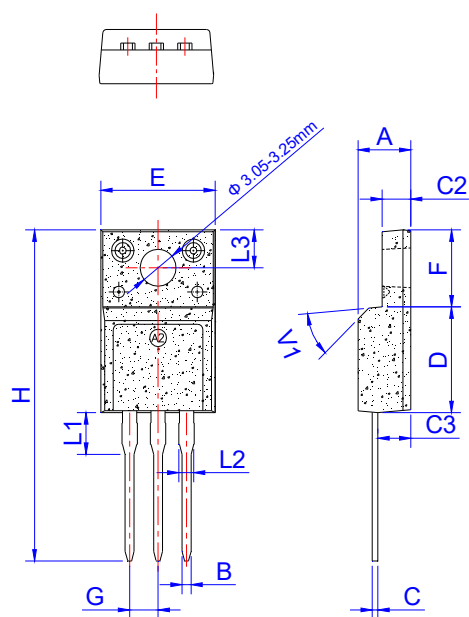
2018	2019	2020	2021	2022	2023	2024
H	I	J	K	L	M	N
2025	2026	2027	2028	2029	2030	...
O	P	Q	R	S	T	...

3Hx: Batch number

**ORDERING INFORMATION**

J	E	F	R	16	08	FP	CT
JieJie Microelectronics	EPI	Fast	Rectifier	$I_{F(AV)}=16A$	$V_{RRM}=800V$	Package: TO-220FP	Common cathode

## PACKAGE MECHANICAL DATA



TO-220FP

Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.50		4.90	0.177		0.193
B	0.74	0.80	0.83	0.029	0.031	0.033
C	0.47		0.65	0.019		0.026
C2	2.45		2.75	0.096		0.108
C3	2.60		3.00	0.102		0.118
D	8.80		9.30	0.346		0.366
E	9.80		10.4	0.386		0.410
F	6.40		6.80	0.252		0.268
G	2.40		2.70	0.094		0.106
H	28.0		29.8	1.102		1.173
L1		3.63			0.143	
L2	1.14		1.70	0.045		0.067
L3		3.30			0.130	
V1		45°			45°	

## PACKAGE INFORMATION-TO-220FP

OUTLINE	UNIT WEIGHT (g/PCS) typ.	TUBE (PCS)	PER CARTON (PCS)
TUBE	2.07	50	5,000

## CHARACTERISTICS CURVE

FIG.1 Typical forward characteristics

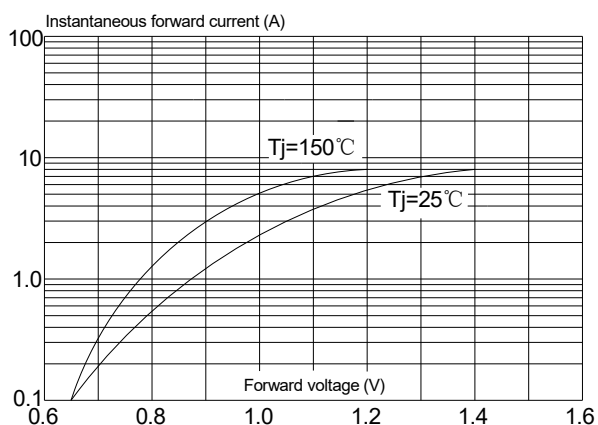


FIG.2 Typical reverse characteristics

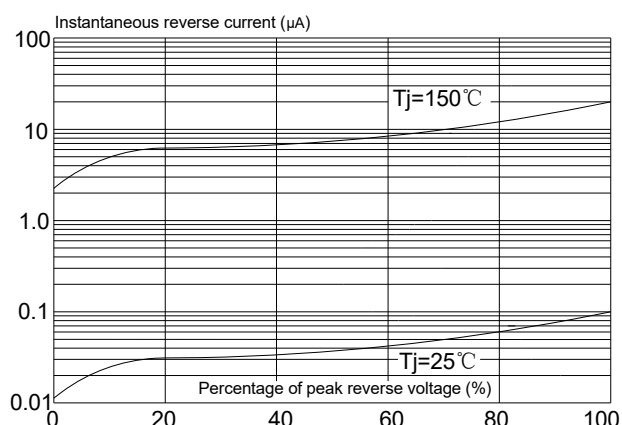


FIG.3 Maximum non-repetitive peak forward surge current

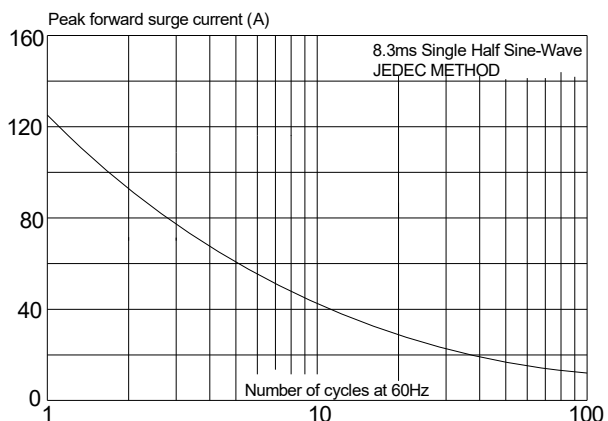
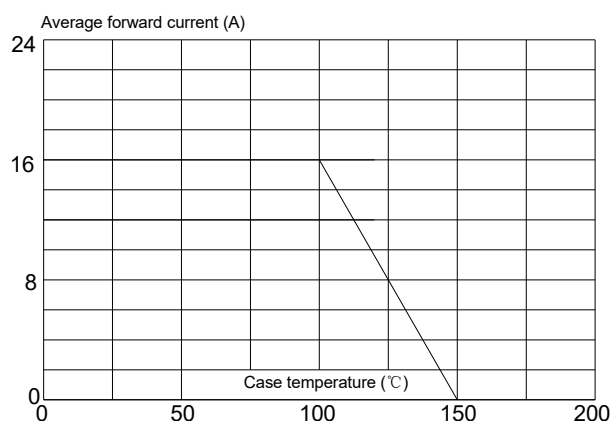


FIG.4 Forward current derating curve



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