



## JECR1602FPCT EPI HYPERFAST RECOVERY RECTIFIER

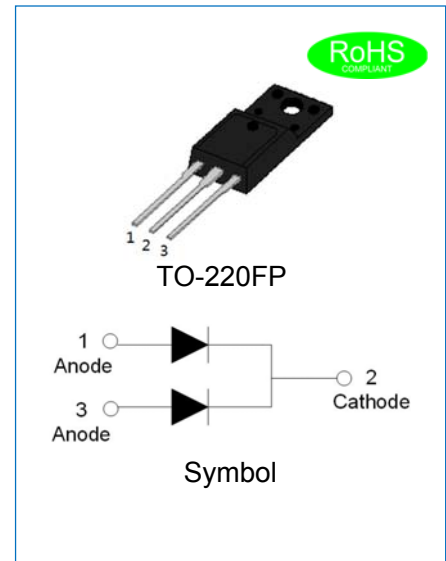
Rev.1.1

### 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
- ✧ Hyperfast 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: 2.07 gram



### ABSOLUTE MAXIMUM RATING (Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	JECR1602FPCT	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	200	V
Maximum RMS voltage	$V_{RMS}$	140	V
Maximum DC blocking voltage	$V_{DC}$	200	V
Average forward current at $T_C=105^\circ\text{C}$	$I_{F(AV)}$	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 +175	°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

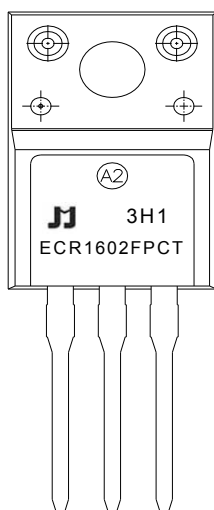
## ELECTRICAL CHARACTERISTICS (Rating at 25°C ambient temperature unless otherwise specified.)

Parameter		Symbol	Min.	Typ.	Max.	Unit
Forward voltage@ $I_F=8A$	$T_j=25^\circ C$	$V_F$	-	-	1.1	V
DC reverse current at rated DC blocking voltage	$T_j=25^\circ C$	$I_R$	-	-	5	$\mu A$
	$T_j=150^\circ C$		-	-	200	
Reverse recovery time	$I_F=0.5A, I_R=1A, I_{RR}=0.25A$	$t_{rr}$	-	-	25	ns

## THERMAL RESISTANCES

Symbol	Parameter	Min.	Typ.	Max.	Unit
$R_{th(j-c)}$	Thermal resistance from junction to case	-	3.6	-	$^\circ C/W$

## MARKING



ECR	EPI Hyperfast Recovery Rectifier
16	$I_{F(AV)}=16A$
02	$V_{RRM}:200V$
FP	Package:TO-220FP
CT	Common cathode

$xH1$ : Month, 1、2、3 ~ 9、A、B、C

$3x1$ :

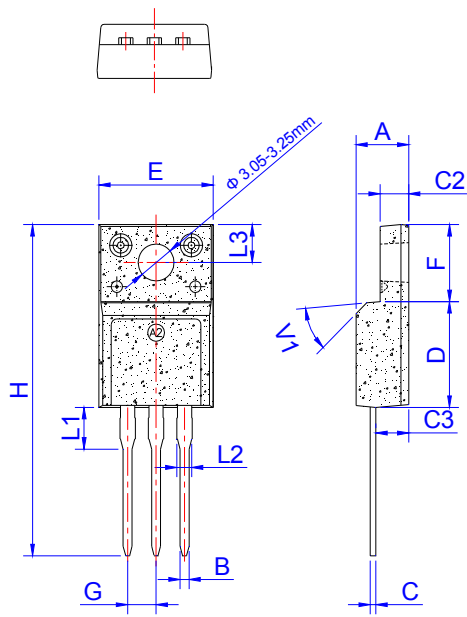
2018	2019	2020	2021	2022	2023	2024
H	I	J	K	L	M	N
2025	2026	2027	2028	2029	2030	...
O	P	Q	R	S	T	...

$3Hx$ : Batch number

## ORDERING INFORMATION

<b>J</b>	<b>E</b>	<b>C</b>	<b>R</b>	<b>16</b>	<b>02</b>	<b>FP</b>	<b>CT</b>
JIEJIE Microelectronics	EPI Hyperfast	Rectifier		$I_{F(AV)}=16A$	$V_{RRM}:200V$	Package:TO-220FP	Common cathode

**PACKAGE MECHANICAL DATA**



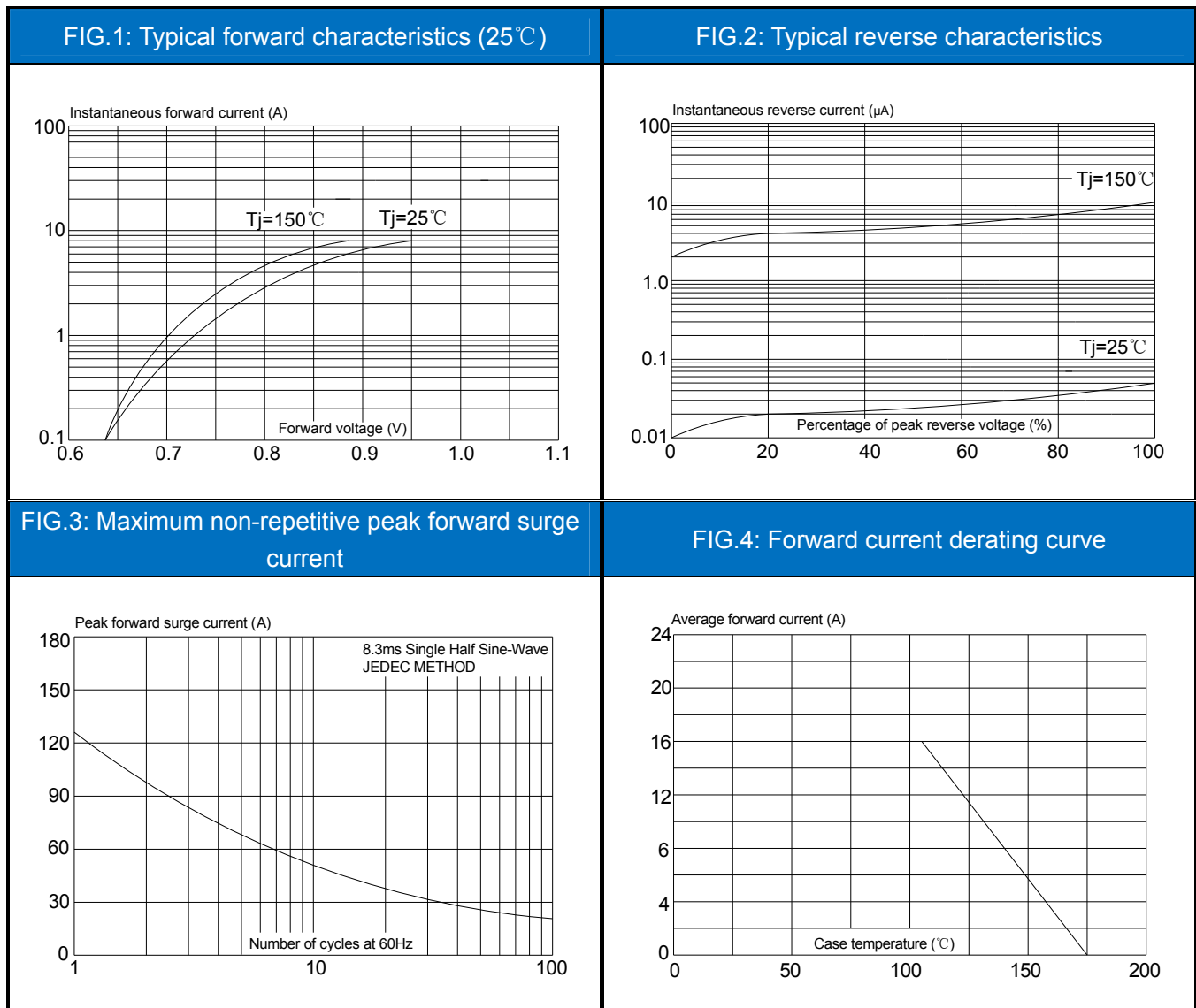
TO-220FP

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




Information furnished in this document is believed to be accurate and reliable. However, Jianguo JieJie Microelectronics Co.,Ltd assumes no responsibility for the consequences of use without consideration for such information nor use beyond it.

Information mentioned in this document is subject to change without notice, apart from that when an agreement is signed, Jianguo JieJie complies with the agreement.

Products and information provided in this document have no infringement of patents. Jianguo JieJie assumes no responsibility for any infringement of other rights of third parties which may result from the use of such products and information.

This document is the 1.1st version which is made in 29-July-2021. This document supersedes and replaces all information previously supplied.

 is a registered trademark of Jianguo JieJie Microelectronics Co.,Ltd.

Copyright ©2021 Jianguo JieJie Microelectronics Co.,Ltd. Printed All rights reserve.