



## JEUR0506FPL

### EPI ULTRAFAST SOFT RECOVERY RECTIFIER

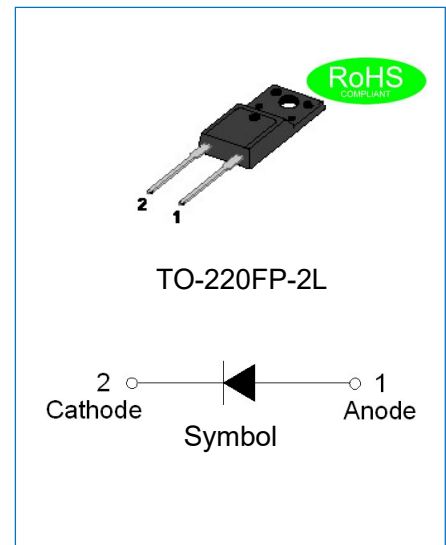
Rev.1.3

#### 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
- ✧ Ultrafast recovery time and soft recovery characteristics
- ✧ Low recovery loss

#### MECHANICAL DATA

- ✧ Case: TO-220FP-2L molded plastic over passivated junction
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Weight:2gram



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

Parameter	Symbol	JEUR0506FPL	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	600	V
Maximum RMS voltage	$V_{RMS}$	420	V
Maximum DC blocking voltage	$V_{DC}$	600	V
Average forward current at $T_h \leq 115^\circ\text{C}$	$I_{F(AV)}$	5	A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	110	A
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150	°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

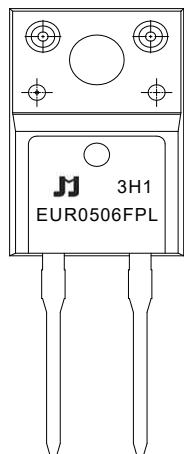
**ELECTRICAL CHARACTERISTICS**(Rating at 25°C ambient temperature unless otherwise specified.)

Parameter		Symbol	Min.	Typ.	Max.	Unit
Forward voltage @ $I_F=5A$	$T_j=25^{\circ}C$	$V_F$	-	1.2	1.35	V
	$T_j=150^{\circ}C$		-	-	1.15	
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	$I_F=0.5A, I_R=1A, I_{rr}=0.25A$	$t_{rr}$	-	-	50	ns
	$I_F=1A, V_R=30V, di/dt=50A/\mu s, T_j=25^{\circ}C$		-	50	65	

**THERMAL RESISTANCES**

Symbol	Parameter	Min.	Typ.	Max.	Unit
$R_{th(j-h)}$	Thermal resistance from junction to heatsink with heatsink compound	-	-	5.5	$^{\circ}C/W$
$R_{th(j-h)}$	Thermal resistance from junction to heatsink without heatsink compound	-	-	5.9	$^{\circ}C/W$
$R_{th(j-a)}$	Thermal resistance from junction to ambient	-	60	-	$^{\circ}C/W$

**MARKING**



EUR	EPI Ultrafast Recovery Rectifier
05	$I_{F(AV)}=5A$
06	$V_{RRM}:600V$
FPL	Package:TO-220FP-2L

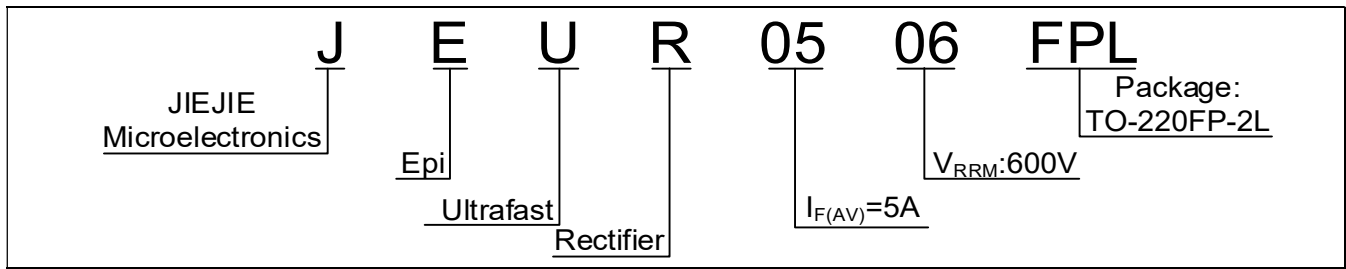
$\underline{x}H1$ : Month, 1/2/3~9/A/B/C

$3\underline{x}1$ :

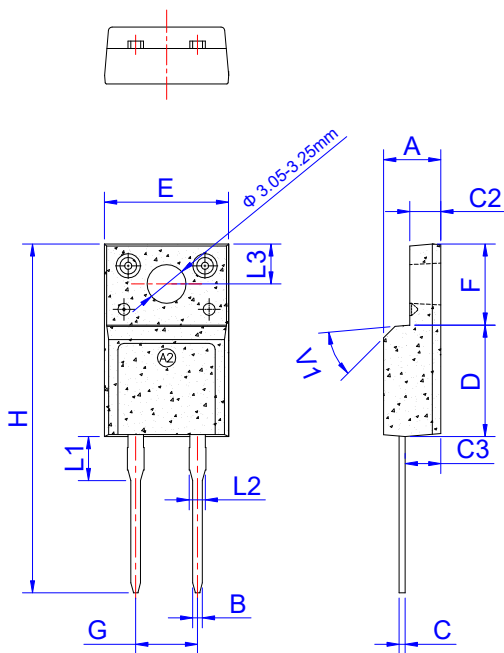
2018	2019	2020	2021	2022	2023	2024
H	I	J	K	L	M	N
2025	2026	2027	2028	2029	2030	...
O	P	Q	R	S	T	...

$3H\underline{x}$ : Batch number

ORDERING INFORMATION



PACKAGE MECHANICAL DATA

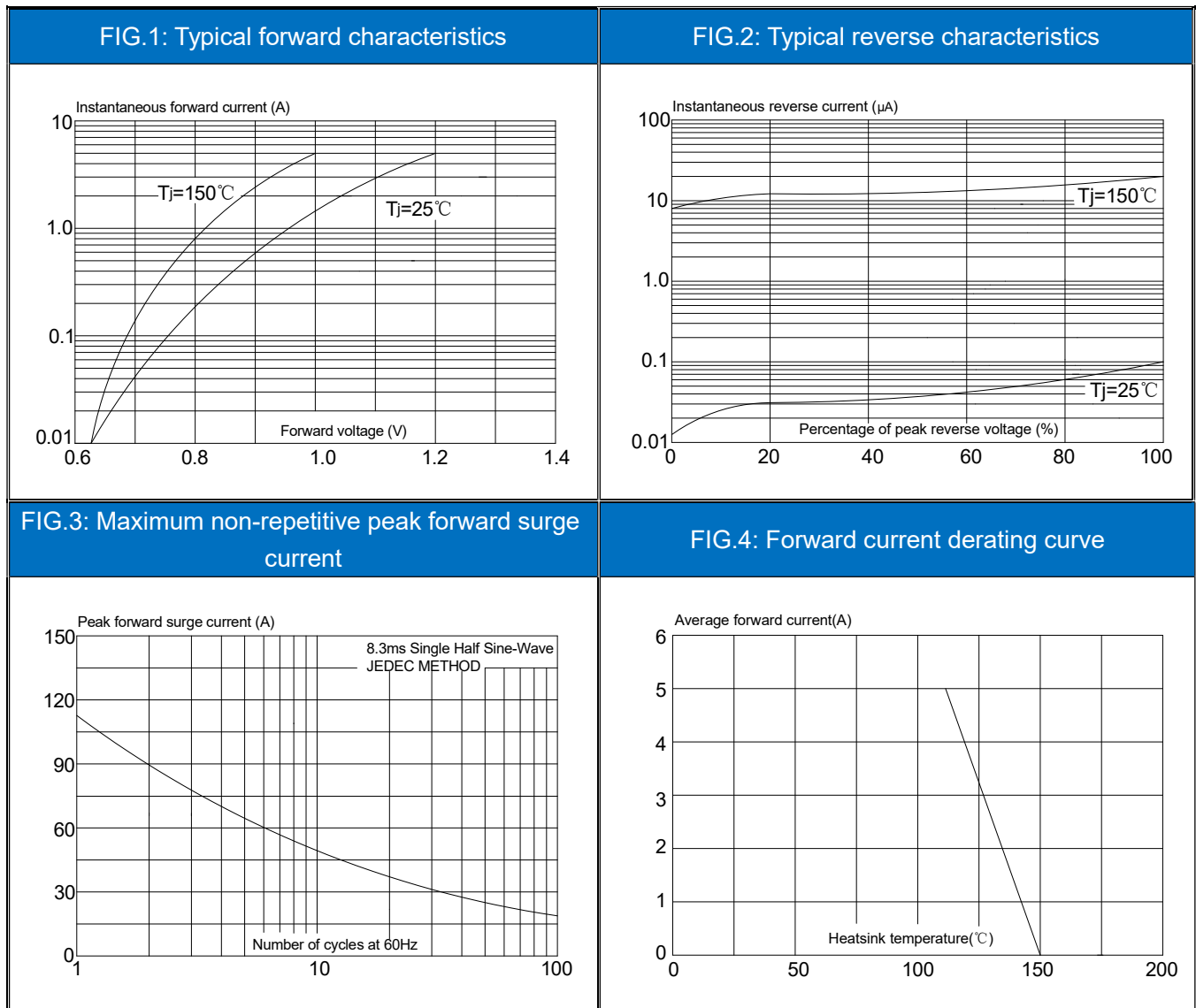


Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.50		4.90	0.177		0.193
B	0.74	0.80	0.83	0.029	0.031	0.033
C	0.47		0.65	0.019		0.026
C2	2.45		2.75	0.096		0.108
C3	2.60		3.00	0.102		0.118
D	8.80		9.30	0.346		0.366
E	9.80		10.4	0.386		0.410
F	6.40		6.80	0.252		0.268
G		5.08			0.200	
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-2L

OUTLINE	UNIT WEIGHT (g/PCS) TYP	TUBE (PCS)	PER CARTON (PCS)
TUBE	2	50	5,000

CHARACTERISTICS CURVE




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