

**JEUR3006CL****EPI ULTRAFAST RECOVERY RECTIFIER**

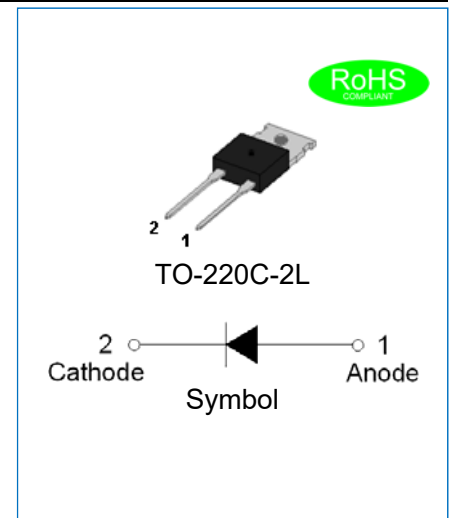
Rev.1.6

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

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

Parameter	Symbol	JEUR3006CL	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	600	V
Maximum DC blocking voltage	V_{DC}	600	V
Maximum average forward current at $\delta=0.5$; square-wave pulse; $T_{mb}=119^{\circ}\text{C}$	$I_{F(AV)}$	30	A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	330	A
Peak forward surge current: 10ms single half sine-wave superimposed on rated load		300	
Junction temperature and storage temperature range	T_j, T_{stg}	-55 to +150	$^{\circ}\text{C}$

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

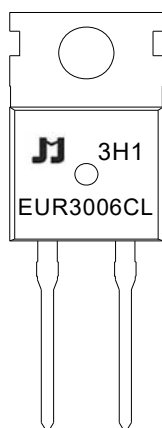
Parameter		Symbol	Min.	Typ.	Max.	Unit
Forward voltage	$I_F=30\text{A}, T_j=25^{\circ}\text{C}$	V_F	-	1.18	1.55	V
	$I_F=30\text{A}, T_j=150^{\circ}\text{C}$		-	0.98	-	
Reverse current	$V_R=600\text{V}, T_j=25^{\circ}\text{C}$	I_R	-	-	5	μA
	$V_R=600\text{V}, T_j=150^{\circ}\text{C}$		-	-	300	

Parameter		Symbol	Min.	Typ.	Max.	Unit
Reverse recovery time	$I_F=1A; V_R=30V; dI_F/dt=50A/\mu s;$ $T_J=25^\circ C$	t_{rr}	-	42	75	ns
	$I_F=30A; V_R=400V; dI_F/dt=200A/\mu s;$ $T_J=25^\circ C$		-	65	-	
	$I_F=30A; V_R=400V; dI_F/dt=200A/\mu s;$ $T_J=125^\circ C$		-	101	-	
Peak reverse recovery current	$I_F=30A; V_R=400V; dI_F/dt=200A/\mu s;$ $T_J=25^\circ C$	I_{RM}	-	8.4	-	A
	$I_F=30A; V_R=400V; dI_F/dt=200A/\mu s;$ $T_J=125^\circ C$		-	15.2	-	
Reverse charge	$I_F=30A; V_R=400V; dI_F/dt=200A/\mu s;$ $T_J=25^\circ C$	Q_{rr}	-	272	-	nC
	$I_F=30A; V_R=400V; dI_F/dt=200A/\mu s;$ $T_J=125^\circ C$		-	775	-	

THERMAL RESISTANCES

Symbol	Parameter	Min.	Typ.	Max.	Unit
$R_{th(j-mb)}$	Thermal resistance from junction to mounting base	-	-	1.2	$^\circ C/W$
$R_{th(j-a)}$	Thermal resistance from junction to ambient free air	-	60	-	

MARKING



EUR	EPI Ultrafast Recovery Rectifier
30	$I_{F(AV)}=30A$
06	$V_{RRM}:600V$
CL	Package: TO-220C-2L

xH1: Month, 1、2、3 ~ 9、A、B、C

3x1:

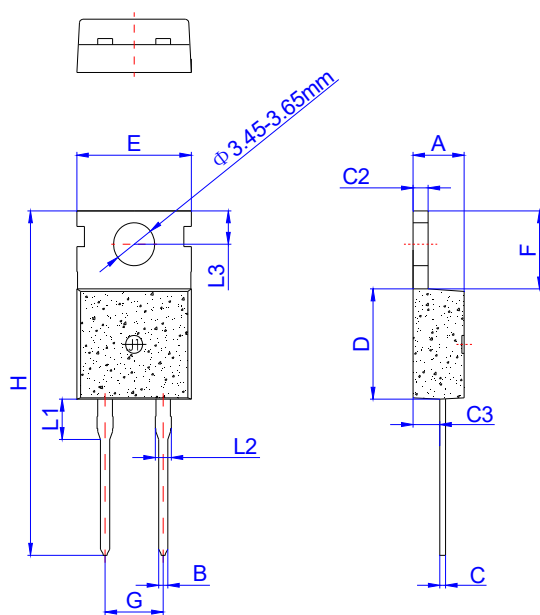
2018	2019	2020	2021	2022	2023	2024
H	I	J	K	L	M	N
2025	2026	2027	2028	2029	2030	...
O	P	Q	R	S	T	...

3Hx: Batch number

ORDERING INFORMATION

J	E	U	R	30	06	CL
JieJie Microelectronics	Epi	Ultrafast	Rectifier	$I_{F(AV)}=30A$	$V_{RRM}=600V$	Package: TO-220C-2L

PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.40		4.60	0.173		0.181
B	0.70		0.90	0.028		0.035
C	0.45		0.60	0.018		0.024
C2	1.23		1.32	0.048		0.052
C3	2.20		2.60	0.087		0.102
D	8.90		9.90	0.350		0.390
E	9.90		10.3	0.390		0.406
F	6.30		6.90	0.248		0.272
G		5.08			0.200	
H	28.0		29.8	1.102		1.173
L1		3.39			0.133	
L2	1.14		1.70	0.045		0.067
L3	2.65		2.95	0.104		0.116
Φ		3.6			0.142	

PACKAGE INFORMATION-TO-220C-2L

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

CHARACTERISTICS CURVE

FIG.1 Typical forward characteristics

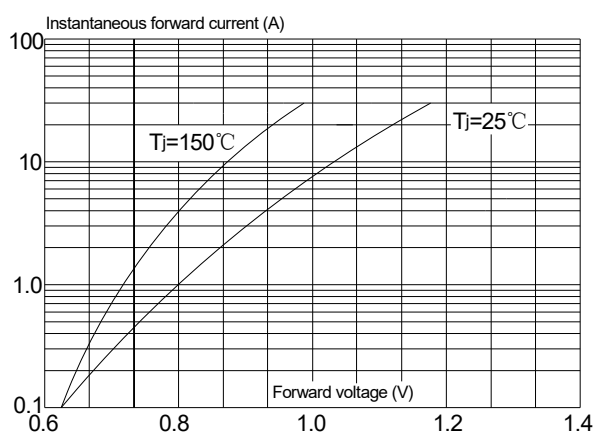


FIG.2 Typical reverse characteristics

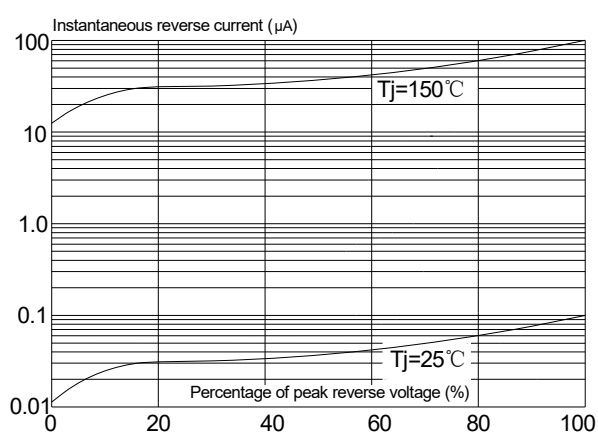


FIG.3 Maximum non-repetitive peak forward surge current(10ms single half sine-wave)

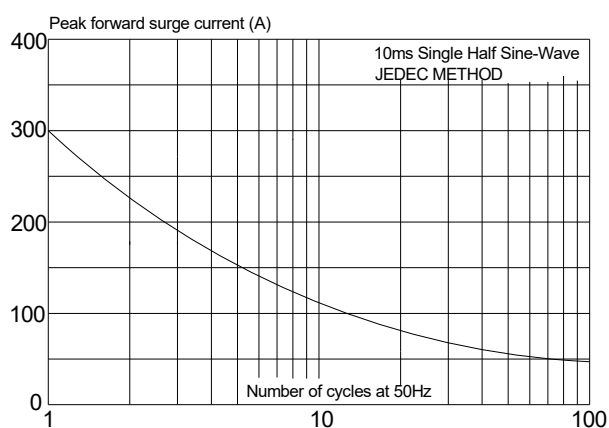


FIG.4 Maximum non-repetitive peak forward surge current(8.3ms single half sine-wave)

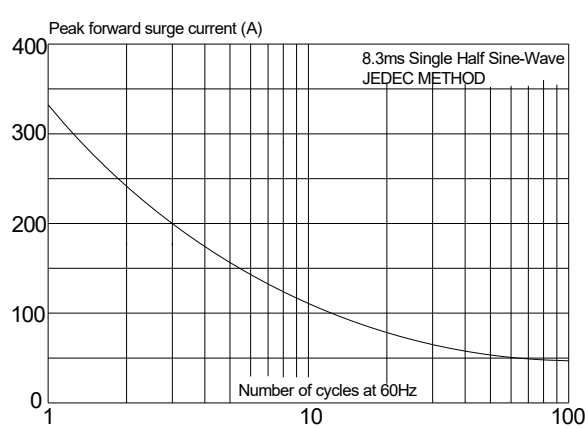


FIG.5: Forward current derating curve

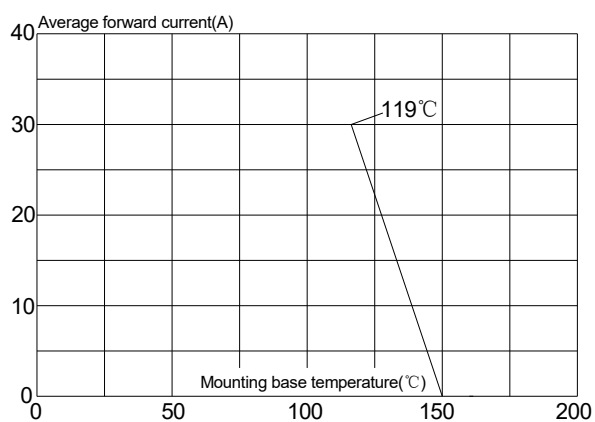
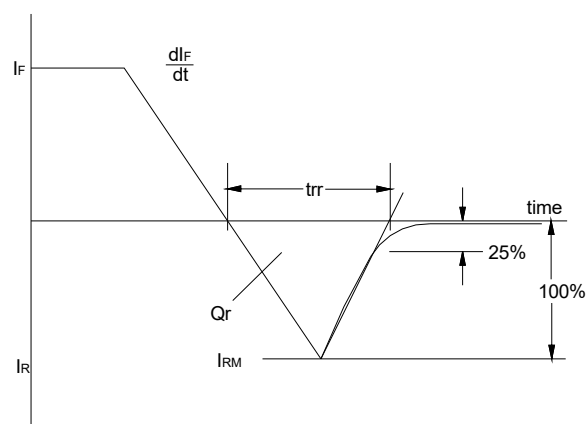


FIG.6: Reverse recovery definitions



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