



JEER2004CL

EPI SUPERFAST SOFT RECOVERY RECTIFIER

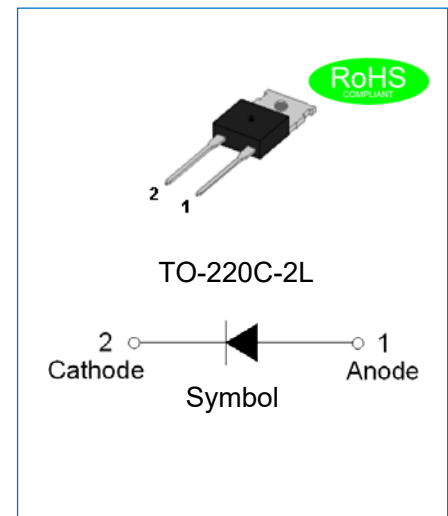
Rev.1.2

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
- ✧ Superfast 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	JEER2004CL	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	400	V
Maximum DC blocking voltage	V_{DC}	400	V
Maximum average forward rectified current at $T_C=100^\circ\text{C}$	$I_{F(AV)}$	20	A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	200	A
Junction temperature and storage temperature range	T_j, T_{stg}	-55 to +150	$^\circ\text{C}$

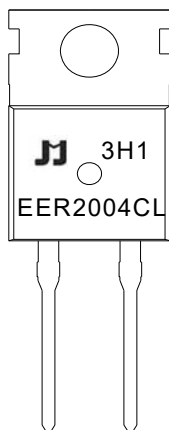
ELECTRICAL CHARACTERISTICS (Rating at 25°C case temperature unless otherwise specified.)

Parameter		Symbol	Min.	Typ.	Max.	Unit
Forward voltage	$I_F=20\text{A}$	V_F	-	-	1.3	V
Reverse current	$V_R=400\text{V}, T_j=25^\circ\text{C}$	I_R	-	-	5	μA
	$V_R=400\text{V}, T_j=150^\circ\text{C}$		-	-	300	
Maximum reverse recovery time	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{RR}=0.25\text{A}$	t_{rr}	-	-	35	ns

THERMAL RESISTANCES

Symbol	Parameter	Min.	Typ.	Max.	Unit
$R_{th(j-c)}$	Thermal resistance from junction to case	-	3	-	°C/W

MARKING



EER	EPI Superfast Recovery Rectifier
20	$I_{F(AV)}=20A$
04	$V_{RRM}:400V$
CL	Package: TO-220C-2L

xH1: Month, 1、2、3 ~ 9、A、B、C

3x1:

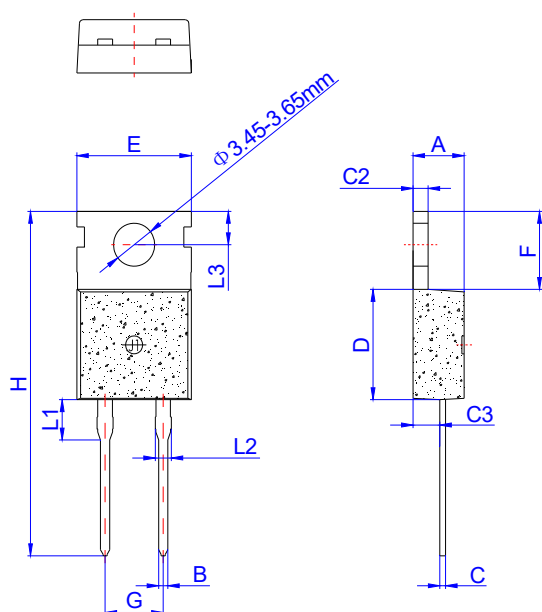
2018	2019	2020	2021	2022	2023	2024
H	I	J	K	L	M	N
2025	2026	2027	2028	2029	2030	...
O	P	Q	R	S	T	...

3Hx: Batch number

ORDERING INFORMATION

<u>J</u>	<u>E</u>	<u>E</u>	<u>R</u>	<u>20</u>	<u>04</u>	<u>CL</u>
JIEJIE Microelectronics	Epi	Superfast	Rectifier	$I_{F(AV)}=20A$	$V_{RRM}:400V$	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(25°C)

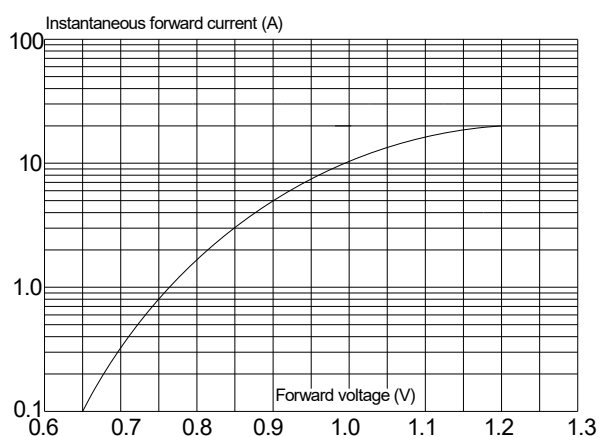


FIG.2: Typical reverse characteristics

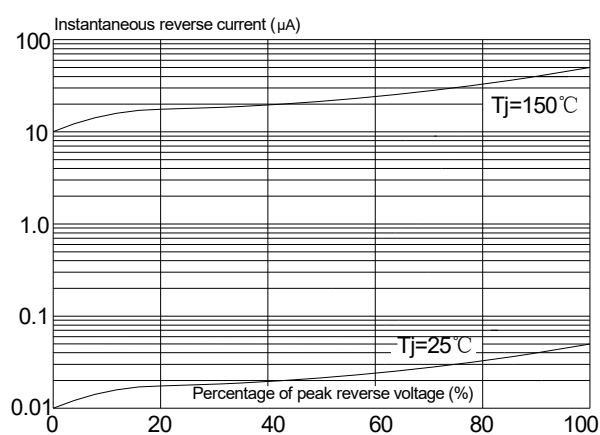


FIG.3: Maximum non-repetitive peak forward surge current

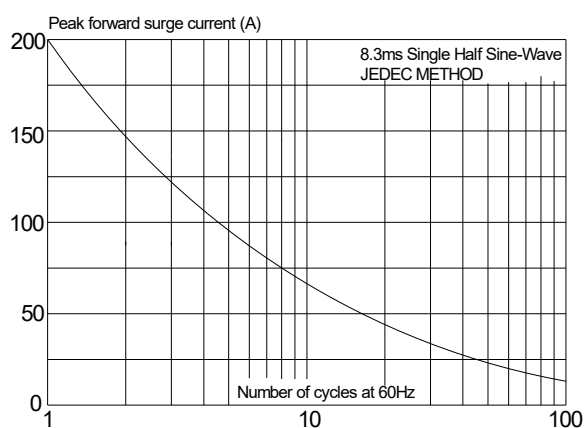
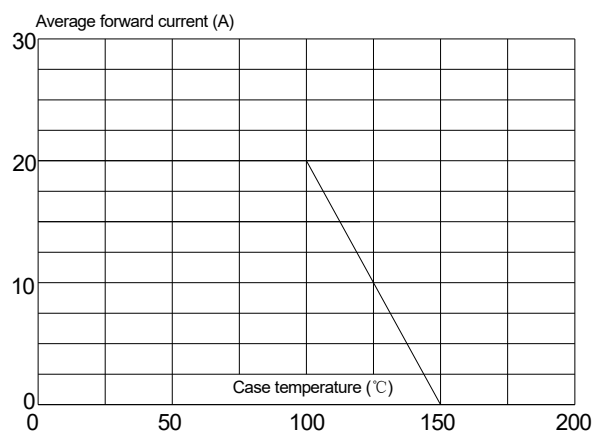


FIG.4: Forward current derating curve




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