



## JEER3006SL

### EPI SUPERFAST RECOVERY RECTIFIER

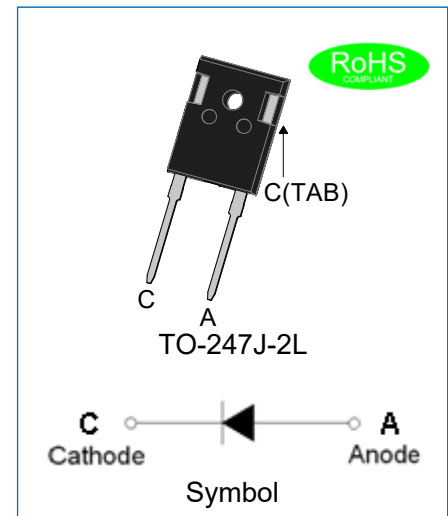
Rev.1.4

#### 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-247J-2L molded plastic
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Weight: 5.75gram



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

Parameter	Symbol	JEER3006SL	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	600	V
Maximum DC blocking voltage	$V_{DC}$	600	V
Average forward current at $T_{mb}=105^{\circ}\text{C}$	$I_{F(AV)}$	30	A
Peak forward surge current: 10ms single half sine-wave superimposed on rated load	$I_{FSM}$	180	A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load		200	
Junction temperature and storage temperature range	$T_j, T_{stg}$	-55 to +150	$^{\circ}\text{C}$

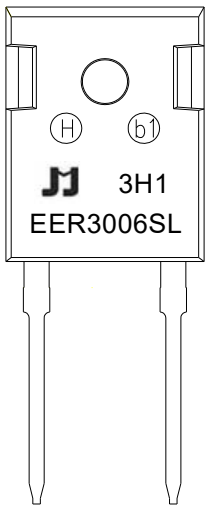
**ELECTRICAL CHARACTERISTICS**(Rating at 25°C ambient temperature unless otherwise specified.)

Parameter		Symbol	Min.	Typ.	Max.	Unit
Forward voltage	$I_F=30A, T_J=25^{\circ}C$	$V_F$	-	1.65	2.0	V
	$I_F=30A, T_J=150^{\circ}C$		-	1.35	-	
Reverse current	$V_R=600V, T_J=25^{\circ}C$	$I_R$	-	-	5	$\mu A$
	$V_R=600V, T_J=150^{\circ}C$		-	-	400	
Reverse recovery time	$I_F=0.5A, I_R=1A, I_{rr}=0.25A$	$t_{rr}$	-	-	35	ns
	$I_F=30A, V_R=30V, di/dt=200A/\mu s, T_J=25^{\circ}C$		-	41	90	
	$I_F=30A, V_R=200V, di/dt=200A/\mu s, T_J=25^{\circ}C$		-	51	-	
	$I_F=30A, V_R=200V, di/dt=200A/\mu s, T_J=125^{\circ}C$		-	90	-	
Peak reverse recovery current	$I_F=30A, V_R=200V, di/dt=200A/\mu s, T_J=25^{\circ}C$	$I_{RM}$	-	5.5	-	A
	$I_F=30A, V_R=200V, di/dt=200A/\mu s, T_J=125^{\circ}C$		-	12.5	-	
Recovered charge	$I_F=30A, V_R=200V, di/dt=200A/\mu s, T_J=25^{\circ}C$	$Q_r$	-	160	-	nC
	$I_F=30A, V_R=200V, di/dt=200A/\mu s, T_J=125^{\circ}C$		-	580	-	

**THERMAL RESISTANCES**

Symbol	Parameter	Min.	Typ.	Max.	Unit
$R_{th(j-mb)}$	Thermal resistance from junction to mounting base	-	-	1	$^{\circ}C/W$
$R_{th(j-a)}$	Thermal resistance from junction to ambient free air	-	45	-	$^{\circ}C/W$

MARKING



EER	EPI Superfast Recovery Rectifier
30	$I_{F(AV)}=30A$
06	$V_{RRM}:600V$
SL	Package:TO-247J-2L

$xH1$ : Month, 1/2/3~9/A/B/C

$3x1$ :

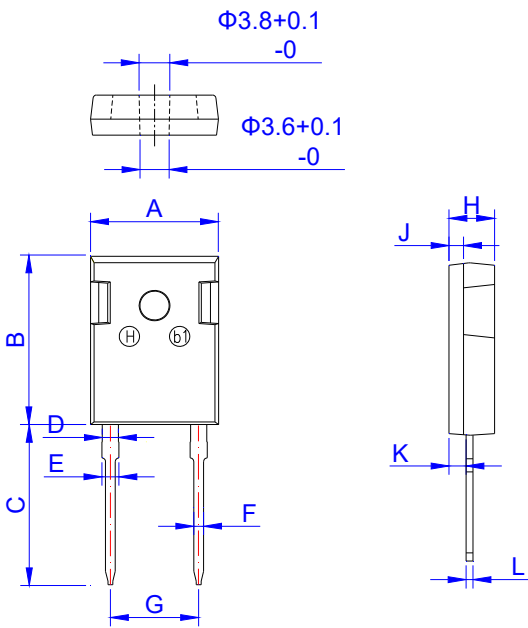
2018	2019	2020	2021	2022	2023	2024
H	I	J	K	L	M	N
2025	2026	2027	2028	2029	2030	...
O	P	Q	R	S	T	...

$3Hx$ : Batch number

ORDERING INFORMATION

J	E	E	R	30	06	SL	Package: TO-247J-2L
JieJie Microelectronics	EPI	Superfast	Rectifier	$I_{F(AV)}=30A$	$V_{RRM}:600V$		

PACKAGE MECHANICAL DATA



TO-247J-2L

Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	15.50	15.80	16.10	0.610	0.622	0.634
B	20.80	21.00	21.20	0.819	0.827	0.835
C	19.70	20.00	20.30	0.776	0.787	0.799
D	1.80	2.00	2.20	0.071	0.079	0.087
E	1.90	2.10	2.30	0.075	0.083	0.091
F	1.00	1.20	1.40	0.039	0.047	0.055
G	10.50		11.30	0.413		0.445
H	4.80	5.00	5.20	0.189	0.197	0.205
J	1.90	2.00	2.10	0.075	0.079	0.083
K	2.20	2.35	2.50	0.087	0.093	0.098
L	0.41	0.60	0.79	0.016	0.024	0.031

## PACKAGE INFORMATION-TO-247J-2L

OUTLINE	UNIT WEIGHT (g/PCS) TYP	TUBE (PCS)	PER CARTON (PCS)
TUBE	5.75	30	2,250

## CHARACTERISTICS CURVE

FIG.1: Typical forward characteristics

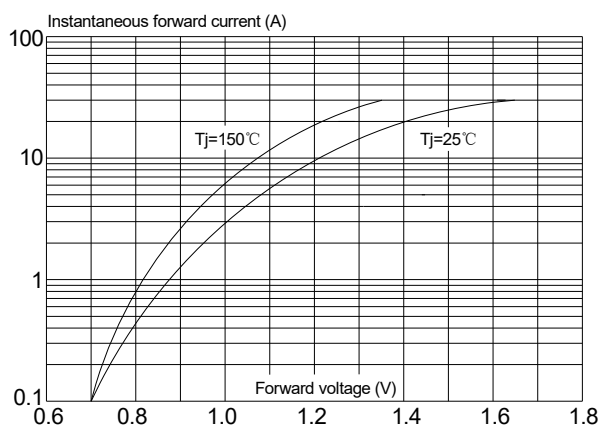


FIG.2: Typical reverse characteristics

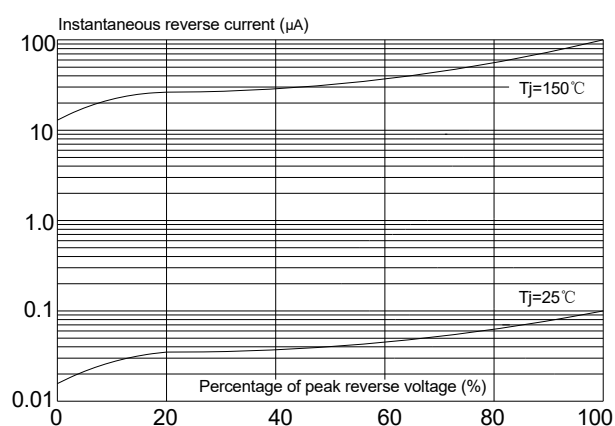


FIG.3: Maximum non-repetitive peak forward surge current(10ms single half sine-wave)

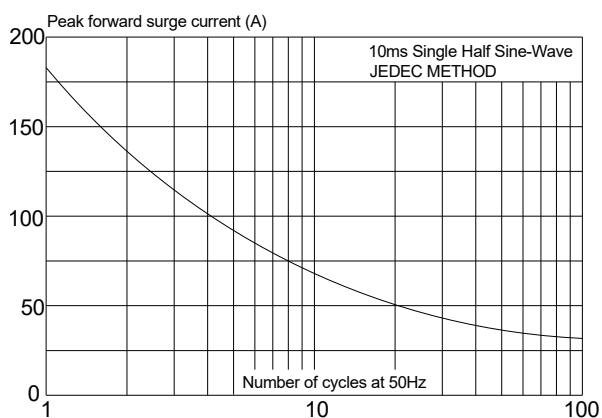


FIG.4: Maximum non-repetitive peak forward surge current(8.3ms single half sine-wave)

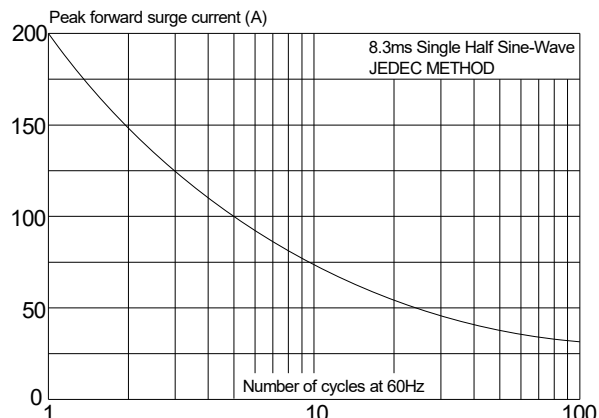


FIG.5: Forward current derating curve

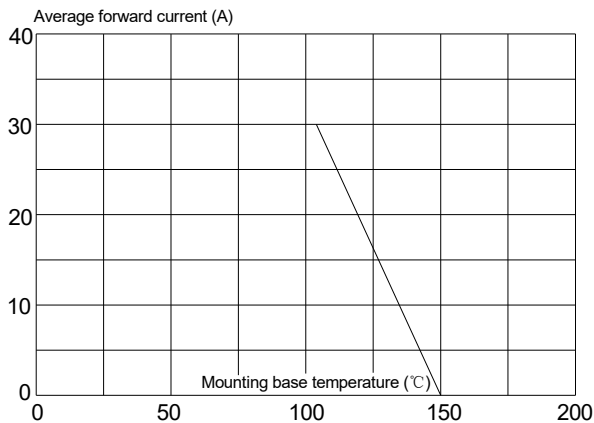
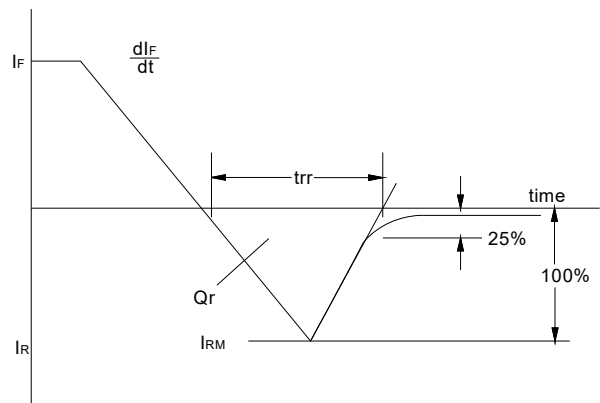


FIG.6: Reverse recovery definitions



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