



## JEUR6006SCT EPI ULTRA FAST SOFT RECOVERY RECTIFIER

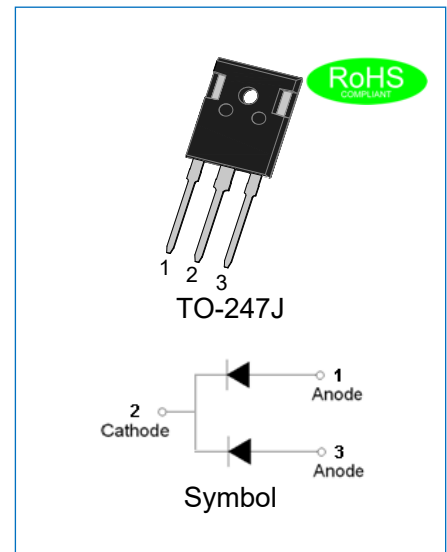
Rev.1.6

### 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
- ✧ Ultra fast recovery time and soft recovery characteristics
- ✧ Low recovery loss

### MECHANICAL DATA

- ✧ Case: TO-247J molded plastic over passivated junction
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Weight:6gram



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

Parameter	Symbol	JEUR6006SCT	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 $T_C=125^\circ\text{C}$	$I_{F(AV)}$	60	A
Peak forward surge current: 10ms single half sine-wave superimposed on rated load, per diode	$I_{FSM}$	210	A
Junction temperature and storage temperature range	$T_j, T_{stg}$	-55 to +150	°C

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

Parameter	Symbol	Min.	Typ.	Max.	Unit
Forward voltage @ $I_F=30\text{A}$	$V_F$	-	-	1.55	V
				$T_j=150^\circ\text{C}$	
Forward voltage @ $I_F=60\text{A}$	$V_F$	-	-	1.78	V
				$T_j=150^\circ\text{C}$	
DC reverse current at rated DC blocking voltage	$I_R$	-	-	5	uA
				$T_j=150^\circ\text{C}$	

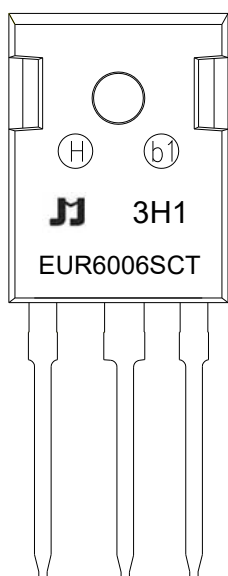
## ELECTRICAL CHARACTERISTICS (Rating at 25°C ambient temperature unless otherwise specified continued.)

Parameter		Symbol	Min.	Typ.	Max.	Unit
Reverse recovery time	$I_F=1A, V_R=30V,$ $di_F/dt=50A/\mu s, T_j=25^\circ C$	$t_{rr}$	-	48	75	ns
	$I_F=1A, V_R=30V,$ $di_F/dt=100A/\mu s, T_j=25^\circ C$		-	35	50	
	$I_F=30A, V_R=400V,$ $di_F/dt=200A/\mu s, T_j=25^\circ C$		-	70	-	
	$I_F=30A, V_R=400V,$ $di_F/dt=200A/\mu s, T_j=125^\circ C$		-	120	-	
Reverse recovery current	$I_F=30A, V_R=400V,$ $di_F/dt=200A/\mu s, T_j=25^\circ C$	$I_{RM}$	-	10	-	A
	$I_F=30A, V_R=400V,$ $di_F/dt=200A/\mu s, T_j=125^\circ C$		-	18	-	
Reverse charge	$I_F=30A, V_R=400V,$ $di_F/dt=200A/\mu s, T_j=25^\circ C$	$Q_r$	-	360	-	nC
	$I_F=30A, V_R=400V,$ $di_F/dt=200A/\mu s, T_j=125^\circ C$		-	1100	-	

## THERMAL RESISTANCES

Symbol	Parameter	Min.	Typ.	Max.	Unit
$R_{th(j-c)}$	Thermal resistance from junction to case	-	0.5	-	°C/W
$R_{th(j-a)}$	Thermal resistance from junction to ambient free air	-	45	-	

## MARKING



EUR	EPI Ultrafast Recovery Rectifier
60	$I_{F(AV)}=60A$
06	$V_{RRM}:600V$
S	Package:TO-247J
CT	Common cathode

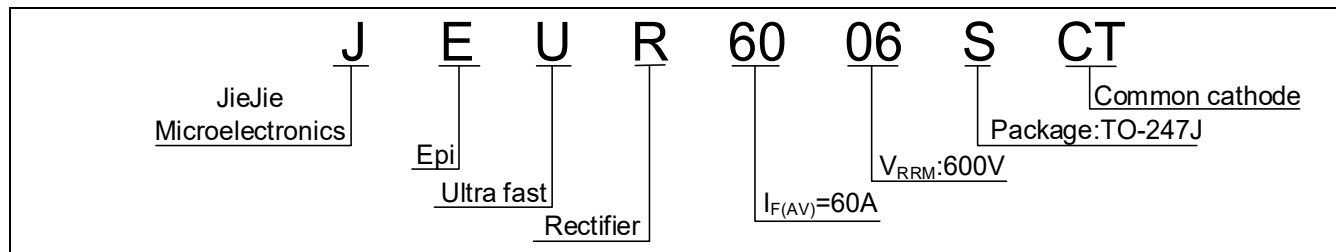
$\underline{x}H1$ : Month, 1/2/3~9/A/B/C

$3\underline{x}1$ :

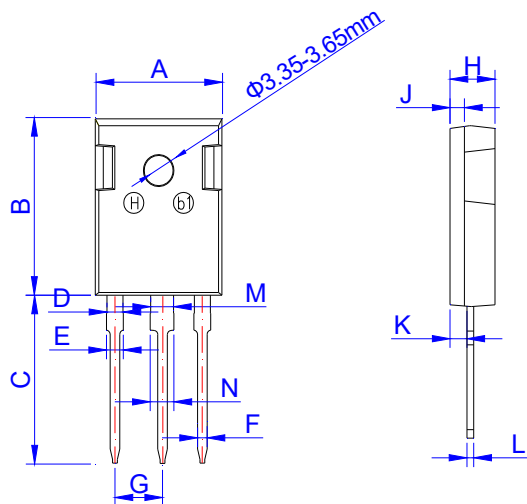
2018	2019	2020	2021	2022	2023	2024
H	I	J	K	L	M	N
2025	2026	2027	2028	2029	2030	...
O	P	Q	R	S	T	...

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

**ORDERING INFORMATION**



**PACKAGE MECHANICAL DATA**



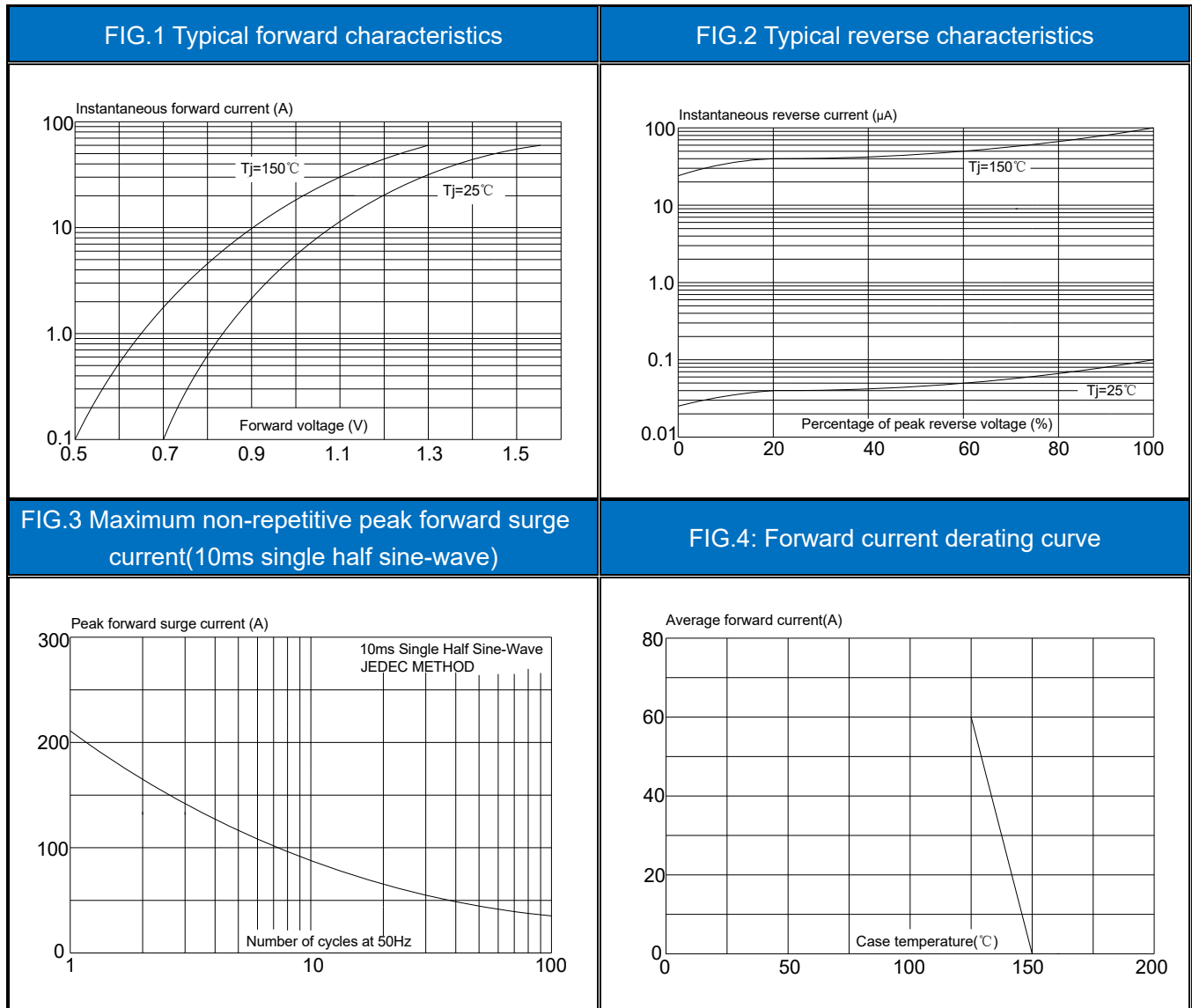
TO-247J

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	5.25		5.65	0.207		0.222
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
M	2.80	3.00	3.20	0.110	0.118	0.126
N	2.90	3.10	3.30	0.114	0.122	0.130

**PACKAGE INFORMATION-TO-247J**

OUTLINE	UNIT WEIGHT (g/PCS) TYP	TUBE (PCS)	PER CARTON (PCS)
TUBE	6	30	2,250

CHARACTERISTICS CURVE




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