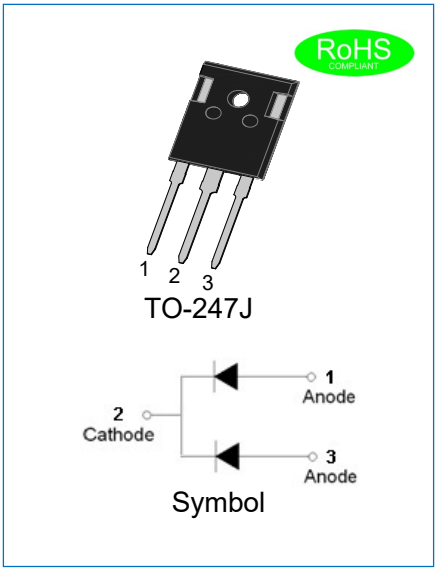
JECR4002SCT

EPI HYPERFAST RECOVERY RECTIFIER

Rev.1.1

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
- ✧ Hyperfast recovery time and soft recovery characteristics
- ✧ Low recovery loss
- ✧ Applications for PFC circuit (CCM),for white goods，for telecommunication device, etc.



MECHANICAL DATA

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

ABSOLUTE MAXIMUM RATING (Rating at 25℃ ambient temperature unless otherwise specified.)

Parameter	Symbol	JECR4002SCT	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	200	V
Maximum RMS voltage	V_{RMS}	140	V
Maximum DC blocking voltage	V_{DC}	200	V
Average forward current at T_C=125℃	$I_{F(AV)}$	40	A
Peak forward surge current: 10ms single half sine-wave superimposed on rated load(per diode)	I_{FSM}	250	A
Junction temperature and storage temperature range	T_j,T_{stg}	-55 to +150	℃

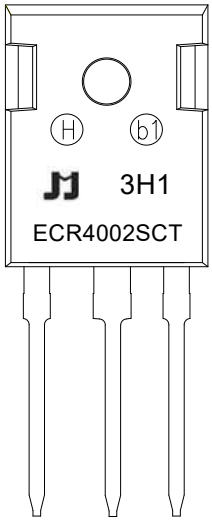
ELECTRICAL CHARACTERISTICS(Rating at 25℃ ambient temperature unless otherwise specified.)

Parameter		Symbol	Min.	Typ.	Max.	Unit
Forward voltage @I_F=20A	T_j=25℃	V_F	-	-	1.1	V
	T_j=150℃		-	-	0.95	
DC reverse current at rated DC blocking voltage	T_j=25℃	I_R	-	-	5	μA
	T_j=150℃		-	-	300	
Reverse recovery time	I_F=0.5A,I_R=1A,I_{RR}=0.25A	t_{rr}	-	-	25	ns

THERMAL RESISTANCES

Symbol	Parameter	Min.	Typ.	Max.	Unit
$R_{th(j-c)}$	Thermal resistance from junction to case	-	-	2.0	℃/W

MARKING



ECR	EPI Hyperfast Recovery Rectifier
40	$I_{F(AV)}$=40A
02	V_{RRM}:200V
S	Package:TO-247J
CT	Common cathode

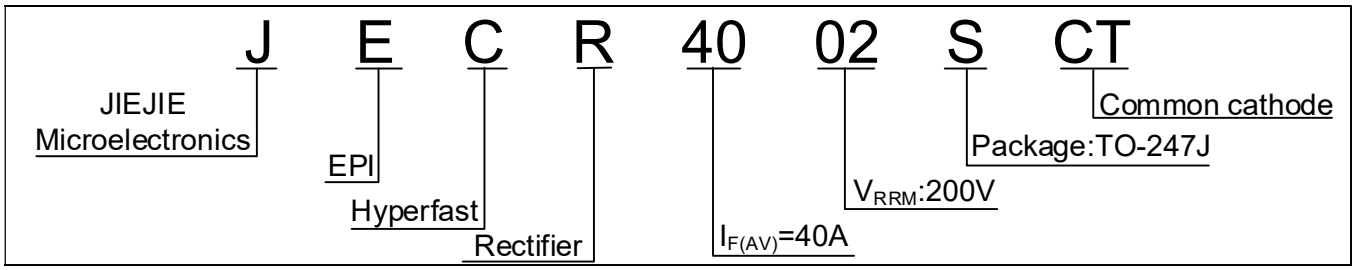
xH1: Month, 1/2/3~9/A/B/C

3**x**1:

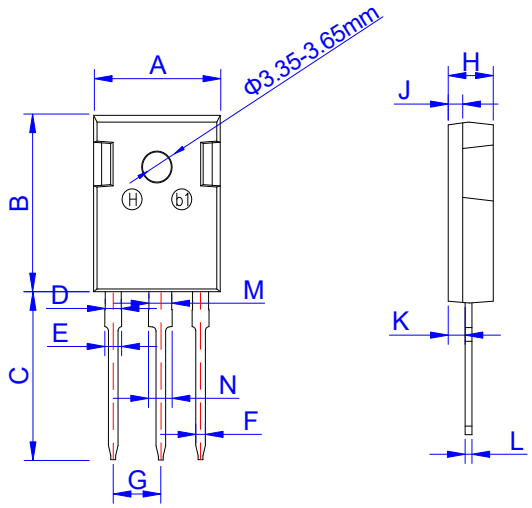
2018	2019	2020	2021	2022	2023	2024
H	I	J	K	L	M	N
2025	2026	2027	2028	2029	2030	…
O	P	Q	R	S	T	…

3H**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

CHARACTERITICS CURVE

FIG.1: Typical forward characteristics(25℃)

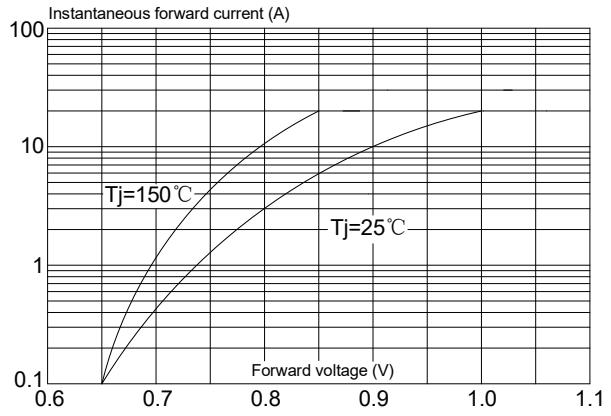


FIG.2: Typical reverse characteristics

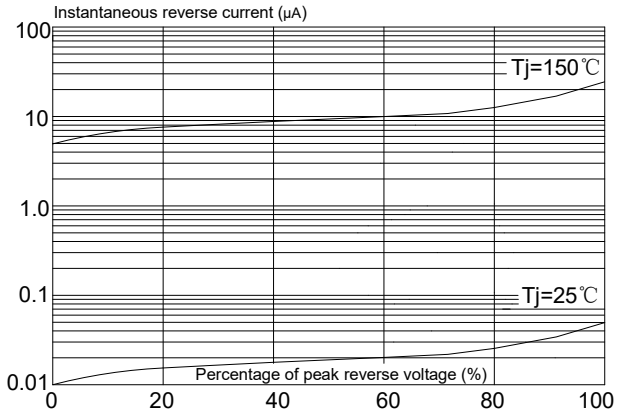


FIG.3: Maximum non-repetitive peak forward surge current

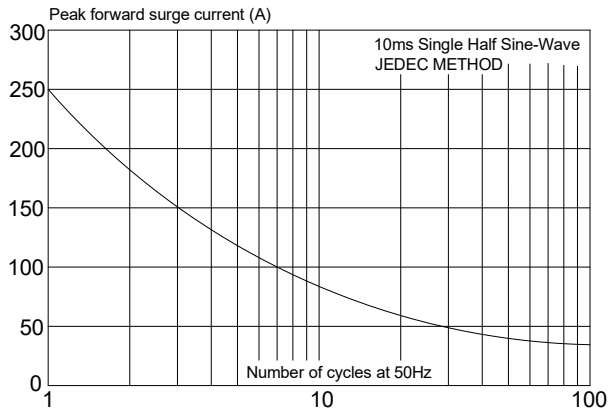
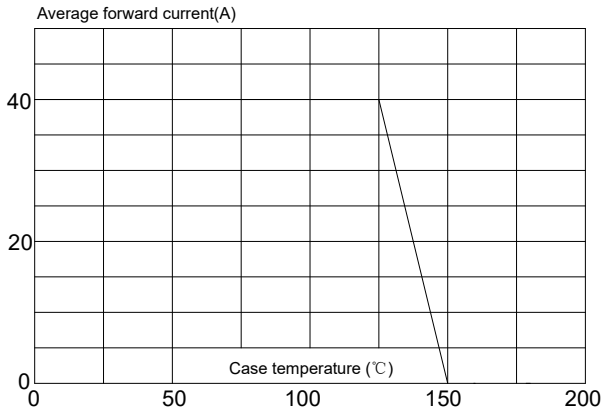


FIG.4: Forward current derating curve



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