

**JECR1602BCT****EPI HYPERFAST RECOVERY RECTIFIER**

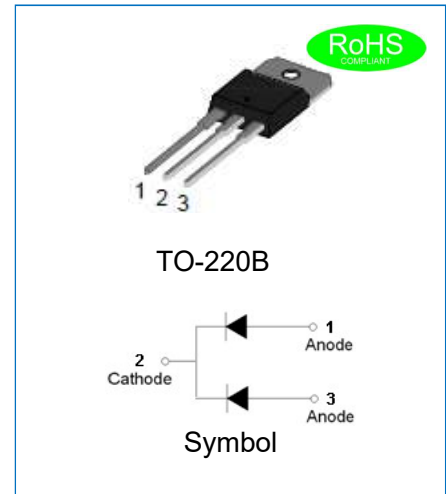
Rev.1.2

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
- ✧ Hyperfast recovery time and soft recovery characteristics
- ✧ Low recovery loss

MECHANICAL DATA

- ✧ Case: TO-220B molded plastic over passivated junction
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Weight: 1.94 gram

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

Parameter	Symbol	JECR1602BCT	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 $T_C=125^{\circ}\text{C}$	$I_{F(AV)}$	16	A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load (per diode)	I_{FSM}	125	A
Junction temperature and storage temperature range	T_j, T_{stg}	-55 to +150	$^{\circ}\text{C}$

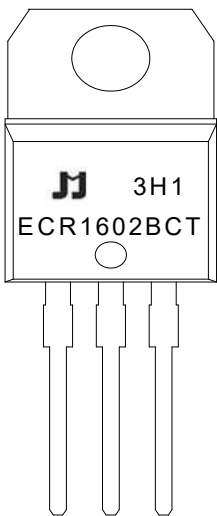
ELECTRICAL CHARACTERISTICS(Rating at 25°C case temperature unless otherwise specified.)

Parameter		Symbol	Min.	Typ.	Max.	Unit
Forward voltage @ $I_F=8\text{A}$	$T_j=25^{\circ}\text{C}$	V_F	-	-	1.1	V
DC reverse current at rated DC blocking voltage	$T_j=25^{\circ}\text{C}$	I_R	-	-	5	μA
	$T_j=150^{\circ}\text{C}$		-	-	200	
Reverse recovery time	$I_F=0.5\text{A}, I_R=1\text{A}, I_{RR}=0.25\text{A}$	t_{rr}	-	-	25	ns

THERMAL RESISTANCES

Symbol	Parameter	Min.	Typ.	Max.	Unit
$R_{th(j-c)}$	Thermal resistance from junction to case	-	1.5	-	$^{\circ}\text{C/W}$

MARKING



ECR	EPI Hyperfast Recovery Rectifier
16	$I_{F(AV)}=16A$
02	$V_{RRM}:200V$
B	Package:TO-220B
CT	Common cathode

xH1: Month, 1、2、3 ~ 9、A、B、C

3x1:

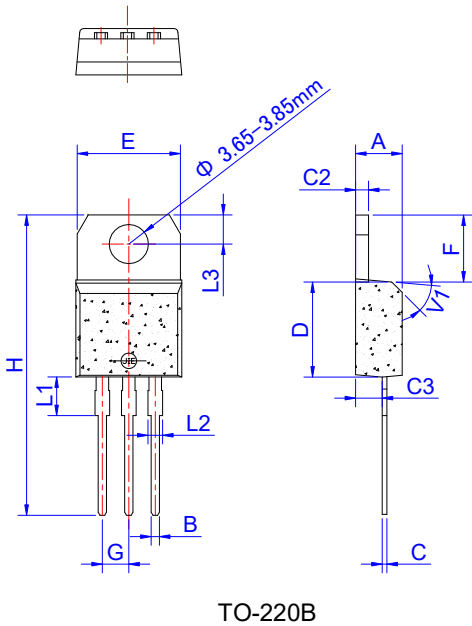
2018	2019	2020	2021	2022	2023	2024
H	I	J	K	L	M	N
2025	2026	2027	2028	2029	2030	...
O	P	Q	R	S	T	...

3Hx: Batch number

ORDERING INFORMATION

J	E	C	R	16	02	B	CT
JIEJIE Microelectronics	EPI Hyperfast	Rectifier		$I_{F(AV)}=16A$	$V_{RRM}:200V$	Package:TO-220B	Common cathode

PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.40		4.60	0.173		0.181
B	0.61		0.88	0.024		0.035
C	0.46		0.70	0.018		0.028
C2	1.21		1.32	0.048		0.052
C3	2.40		2.72	0.094		0.107
D	8.60		9.70	0.339		0.382
E	9.60		10.4	0.378		0.409
F	6.20		6.60	0.244		0.260
G	2.40		2.70	0.094		0.106
H	28.0		29.8	1.102		1.173
L1		3.75			0.147	
L2	1.14		1.70	0.045		0.067
L3	2.65		2.95	0.104		0.116
V1		45°			45°	

PACKAGE INFORMATION-TO-220B

OUTLINE	UNIT WEIGHT (g/PCS) typ.	TUBE (PCS)	PER CARTON (PCS)
TUBE	1.94	50	5,000

CHARACTERISTICS CURVE

FIG.1: Typical forward characteristics (25°C)

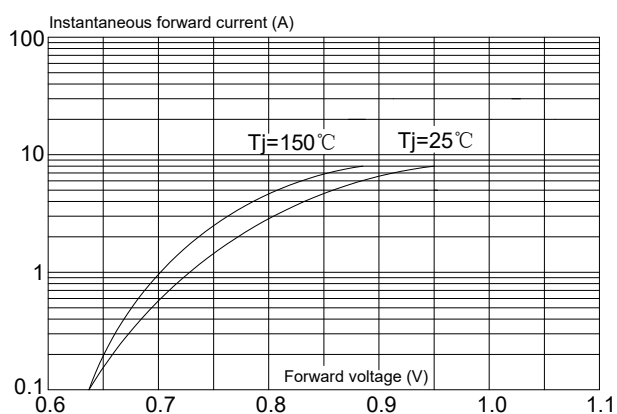


FIG.2: Typical reverse characteristics

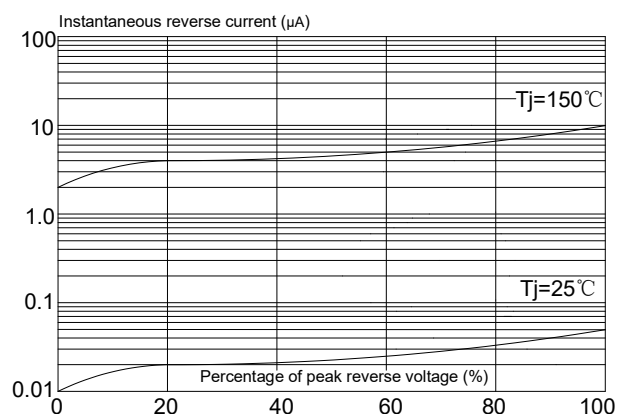


FIG.3: Maximum non-repetitive peak forward surge current

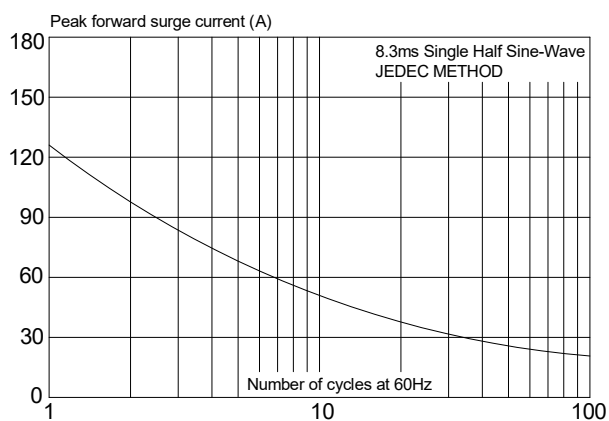
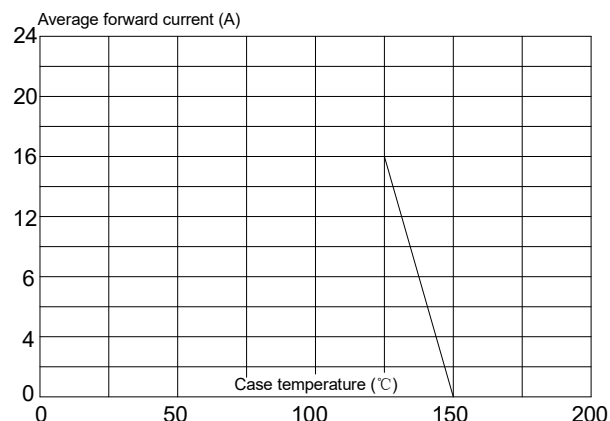


FIG.4: Forward current derating curve



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