



JPUR8002NCT-CO

EPI PLANAR ULTRAFAST SOFT RECOVERY RECTIFIER

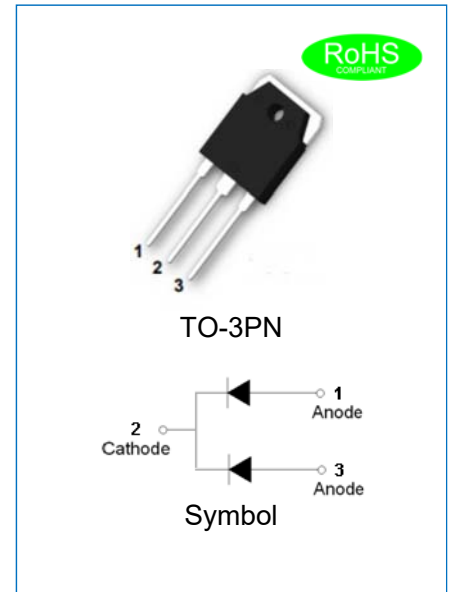
Rev.1.0

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
- ✧ Ultrafast recovery time
- ✧ Epitaxial planar technology
- ✧ 5th Generation soft fast recovery characteristics
- ✧ Low recovery loss

MECHANICAL DATA

- ✧ Case: TO-3PN molded plastic over passivated junction
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Weight: 5.15gram



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

Parameter	Symbol	JPUR8002NCT-CO	Unit
Maximum repetitive peak reverse voltage (Pin1~2 or Pin3~2)	V_{RRM}	200	V
Maximum DC blocking voltage(Pin1~2 or Pin3~2)	V_{DC}	200	V
Average forward current at $T_C=140^{\circ}\text{C}$ (Pin1,3~2)	$I_{F(AV)}$	80	A
Peak forward surge current: 10ms single half sine-wave superimposed on rated load(Pin1~2 or Pin3~2)	I_{FSM}	300	A
Junction temperature and storage temperature range	T_j, T_{stg}	-55 to +175	$^{\circ}\text{C}$

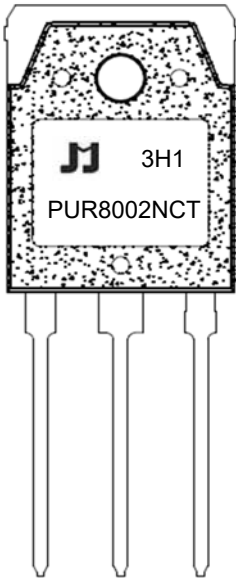
ELECTRICAL CHARACTERISTICS(Rating at 25°C ambient temperature unless otherwise specified.)

Parameter		Symbol	Min.	Typ.	Max.	Unit
Forward voltage (Pin1~2 or Pin3~2)	$I_F=40A, T_J=25^{\circ}C$	V_F	-	0.95	1.1	V
	$I_F=40A, T_J=150^{\circ}C$		-	0.82	-	V
Reverse current (Pin1~2 or Pin3~2)	$V_R=200V, T_J=25^{\circ}C$	I_R	-	-	5	μA
	$V_R=200V, T_J=150^{\circ}C$		-	-	300	
Reverse recovery time (Pin1~2 or Pin3~2)	$I_F=1A, V_R=30V,$ $dl_F/dt=200A/\mu s, T_J=25^{\circ}C$	t_{rr}	-	22	-	ns
	$I_F=40A, V_R=200V,$ $dl_F/dt=200A/\mu s, T_J=25^{\circ}C$		-	36	-	
	$I_F=40A, V_R=200V,$ $dl_F/dt=200A/\mu s, T_J=125^{\circ}C$		-	50	-	
Reverse recovery current (Pin1~2 or Pin3~2)	$I_F=40A, V_R=200V,$ $dl_F/dt=200A/\mu s, T_J=25^{\circ}C$	I_{RM}	-	3.4	-	A
	$I_F=40A, V_R=200V,$ $dl_F/dt=200A/\mu s, T_J=125^{\circ}C$		-	8.5	-	
Reverse charge (Pin1~2 or Pin3~2)	$I_F=40A, V_R=200V,$ $dl_F/dt=200A/\mu s, T_J=25^{\circ}C$	Q_r	-	70	-	nC
	$I_F=40A, V_R=200V,$ $dl_F/dt=200A/\mu s, T_J=125^{\circ}C$		-	220	-	

THERMAL RESISTANCES

Symbol	Parameter	Min.	Typ.	Max.	Unit
$R_{th(j-c)}$	Thermal resistance from junction to case(Pin1,3~2)	-	-	0.8	$^{\circ}C/W$

MARKING



PUR	Planar Ultrafast Recovery Rectifier
80	$I_{F(AV)}=80A$
02	$V_{RRM}:200V$
N	Package:TO-3PN
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	P	U	R	80	02	N	CT	-CO
JieJie Microelectronics	Epi planar	Ultra fast	Rectifier	$I_{F(AV)}=80A$	$V_{RRM}:200V$	Package:TO-3PN	Common cathode	Process code

The technical drawing shows two views of a mechanical component:

- Front View (Left):** A square-like top view with rounded corners. The overall width is 15.748 ± 0.1 . The central hole has a diameter of $\phi 1.2 \times 0.1DP$. There are three smaller holes arranged in a triangular pattern. Dimensions include: inner square width 10 ± 0.2 , distance from center to outer edge 9 ± 0.10 , total height 19.1 ± 0.20 , and various radii ($R0.4$, $R0.5$). A fillet radius of $R0.4$ is shown at the bottom corners.
- Side View (Right):** Shows the profile of the part. It features a vertical section with a width of 4.8 ± 0.1 and a total height of 19.1 ± 0.20 . The base has a thickness of 2.4 ± 0.1 . Angles of 4° and 8° are indicated. A surface finish symbol "光面" (smooth) is present. Other dimensions include 1.5 ± 0.015 , 14.65 ± 0.5 , and 0.6 ± 0.015 .

OUTLINE	UNIT WEIGHT (g/PCS) TYP	TUBE (PCS)	PER CARTON (PCS)
TUBE	5.15	30	2,400

CHARACTERISTICS CURVE

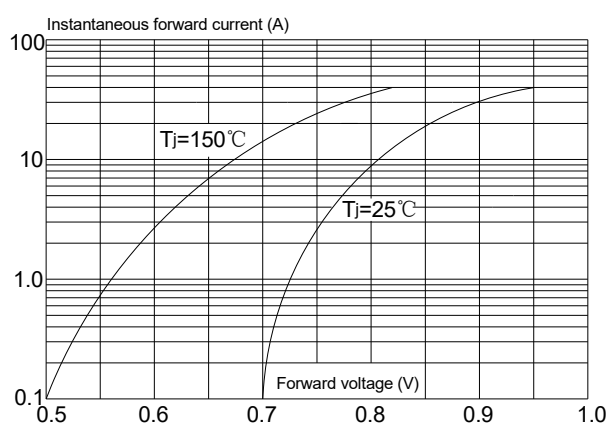
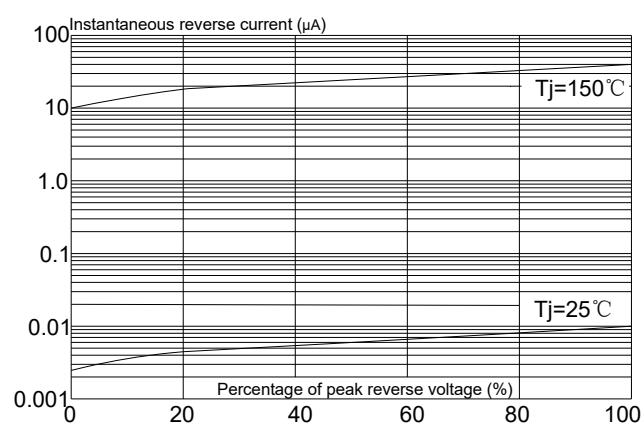
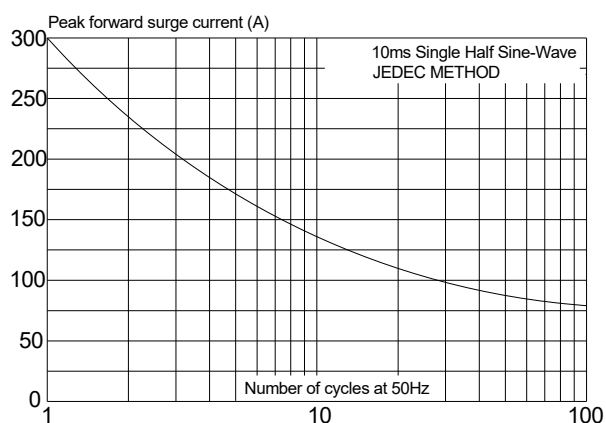
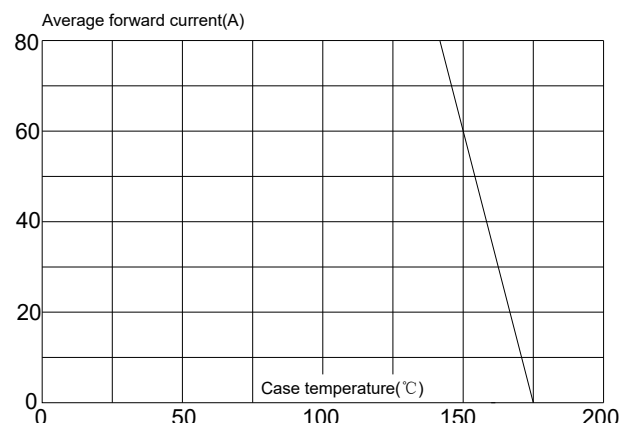
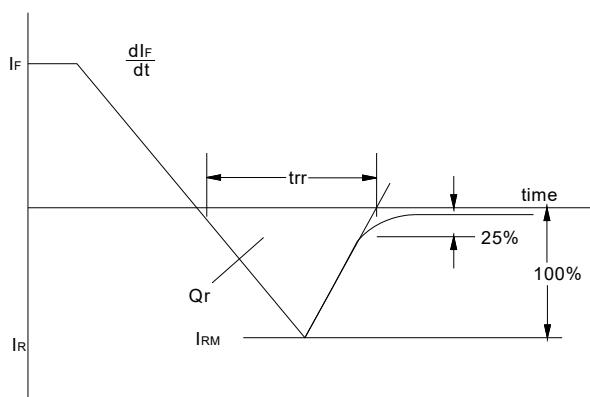
FIG.1 Typical forward characteristics
(Pin1~2 or Pin3~2)FIG.2 Typical reverse characteristics
(Pin1~2 or Pin3~2)FIG.3: Maximum non-repetitive peak forward surge current
(10ms single half sine-wave, Pin1~2 or Pin3~2)FIG.4: Forward current derating curve
(Pin1,3~2)

FIG.5: Reverse recovery definitions



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