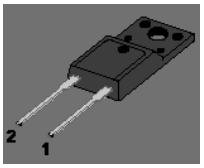
JPCR0806FPL

EPI PLANAR HYPERFAST SOFT 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
Low recovery loss
Epitaxial planar technology
5th Generation soft fast recovery character！



TO-220FP-2L

Output rectifier in high-frequency switched-mode power supplies

Symbol

MECHANICAL DATA

Case: TO-220FP-2L molded plastic over passivated junction
Terminals: Solder plated, solderable per J-STD-002
Weight:2 gram

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

Parameter	Symbol	JPCR0806FPL	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	600	V
Maximum DC blocking voltage	V_{DC}	600	V
Average forward current at T_C=110	$I_{F(AV)}$	8	A
Peak forward surge current: 10ms single half sine-wave superimposed on rated load	I_{FSM}	80	A
Junction temperature and storage temperature range	T_j,T_{stg}	-55 to +175	

ISOLATION CHARACTERISTICS

						Unit
$V_{isol(RMS)}$	RMS isolation voltage	50Hz≤f≤60Hz;RH≤65%; from all pins to external heatsink; sinusoidal waveform; clean and dust free	-	-	2500	V
C_{isol}	Isolation capacitance	from cathode to external heatsink	-	10	-	pF

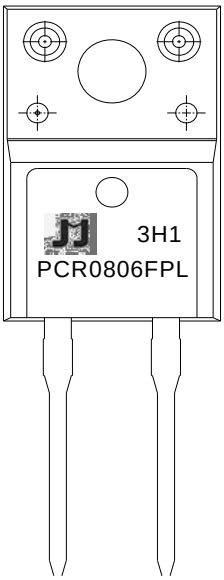
ELECTRICAL CHARACTERISTICS(Rating at 25 ambient temperature unless otherwise specified.)

Parameter		Symbol	Min.	Typ.	Max.	Unit
Forward voltage	I_F=8A,T_j=25	V_F	-	2	2.5	V
	I_F=8A,T_j=150		-	1.5	-	V
Reverse current	V_R=600V,T_j=25	I_R	-	-	5	μA
	V_R=600V,T_j=150		-	-	200	
Reverse recovery time	I_F=1A,V_R=30V, dI_F/dt=200A/μs,T_j=25	t_{rr}	-	17	-	ns
	I_F=8A,V_R=200V, dI_F/dt=200A/μs,T_j=25		-	36	-	
	I_F=8A,V_R=200V, dI_F/dt=200A/μs,T_j=125		-	78	-	
Reverse recovery current	I_F=8A,V_R=200V, dI_F/dt=200A/μs,T_j=25	I_{RM}	-	2.8	-	A
	I_F=8A,V_R=200V, dI_F/dt=200A/μs,T_j=125		-	5.2	-	
Reverse charge	I_F=8A,V_R=200V, dI_F/dt=200A/μs,T_j=25	Q_r	-	60	-	nC
	I_F=8A,V_R=200V, dI_F/dt=200A/μs,T_j=125		-	240	-	

THERMAL RESISTANCES

Symbol	Parameter	Min.	Typ.	Max.	Unit
$R_{th(j-c)}$	Thermal resistance from junction to case	-	-	4	/W

MARKING



PCR	Planar Hyperfast Recovery Rectifier
08	$I_{F(AV)}$=8A
06	V_{RRM}:600V
FPL	Package: TO-220FP-2L

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

ORDERING INFORMATION

J P C R 08 06 FPL

- J: JieJie Microelectronics
- P: Epi planar
- C: Hyperfast
- R: Rectifier
- 08: $I_{F(AV)}$=8A
- 06: V_{RRM}:600V
- FPL: Package:TO-220FP-2L

CHARACTERITICS CURVE

FIG.1: Typical forward characteristics

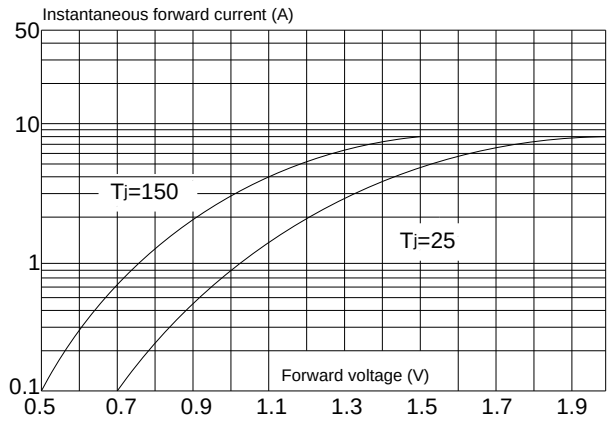


FIG.2: Typical reverse characteristics

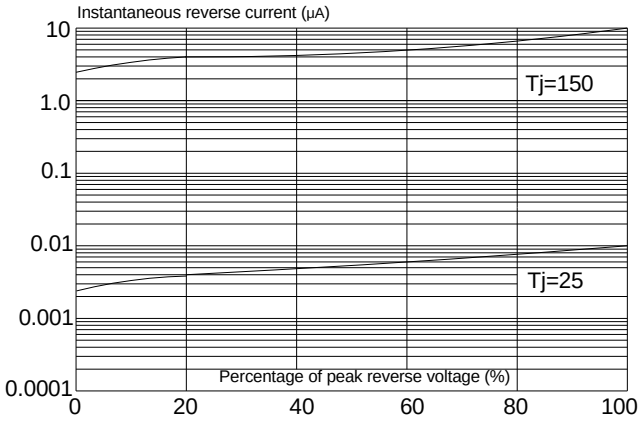


FIG.3: Maximum non-repetitive peak forward surge current(10ms single half sine-wave)

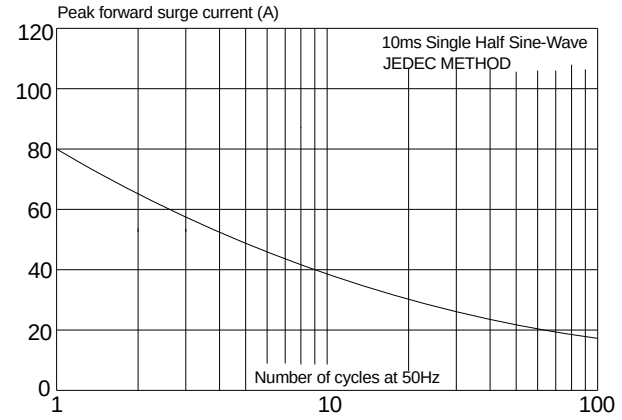


FIG.4: Forward current derating curve

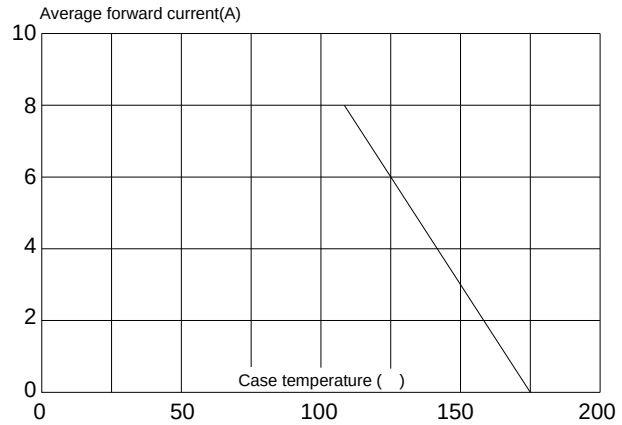
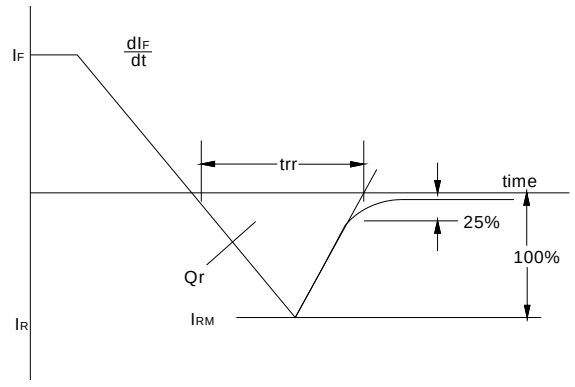


FIG.5: Reverse recovery definitions



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