



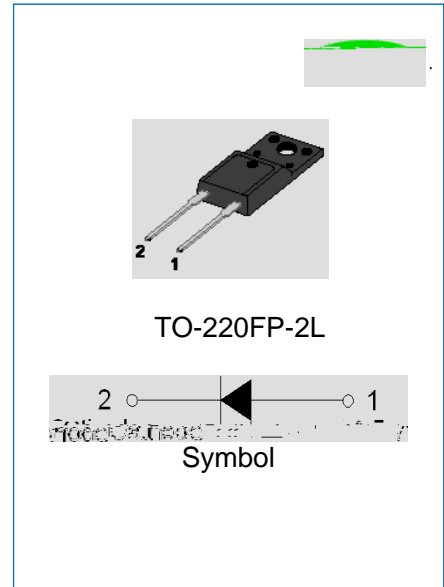
JPCR0812FPL

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



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	Value	Unit
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	88	A
Peak forward surge current: 10ms single half sine-wave superimposed on rated load		80	
Junction temperature and storage temperature range	T _j , T _{stg}	-55 to +175	

ISOLATION CHARACTERISTICS

Symbol	Parameter	Conditions	Min.	Typ.	Max.	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.)

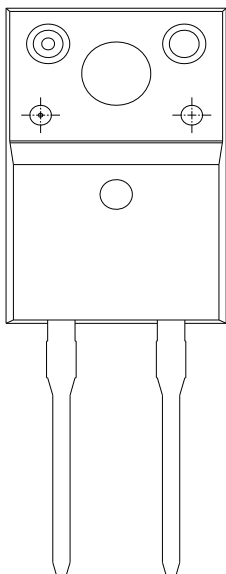
Parameter		Symbol	Min.	Typ.	Max.	Unit
Forward voltage	$I_F=8A, T_j=25$	V_F	-	2.8	3.3	V
	$I_F=8A, T_j=150$		-	2.1	3	
Reverse current	$V_R=1200V, T_j=25$	I_R	-	-	5	μA
	$V_R=1200V, T_j=150$		-	-	200	
Reverse recovery time	$I_F=1A, V_R=30V,$ $di/dt=200A/\mu s, T_j=25$	t_{rr}	-	23	-	ns
	$I_F=8A, V_R=400V,$ $di/dt=200A/\mu s, T_j=25$		-	56	-	
	$I_F=8A, V_R=400V,$ $di/dt=200A/\mu s, T_j=125$		-	115	-	
Peak reverse recovery current	$I_F=8A, V_R=400V,$ $di/dt=200A/\mu s, T_j=25$	I_{RM}	-	3.5	-	A
	$I_F=8A, V_R=400V,$ $di/dt=200A/\mu s, T_j=125$		-	6.5	-	
Recovered charge	$I_F=8A, V_R=400V,$ $di/dt=200A/\mu s, T_j=25$	Q_r	-	115	-	nC
	$I_F=8A, V_R=400V,$ $di/dt=200A/\mu s, T_j=125$		-	460	-	

THERMAL RESISTANCES

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



MARKING





PACKAGE INFORMATION-TO-220FP-2L

OUTLINE	UNIT WEIGHT (g/PCS) typ.	TUBE (PCS)	PER CARTON (PCS)
TUBE	2	50	5,000

CHARACTERISTICS CURVE

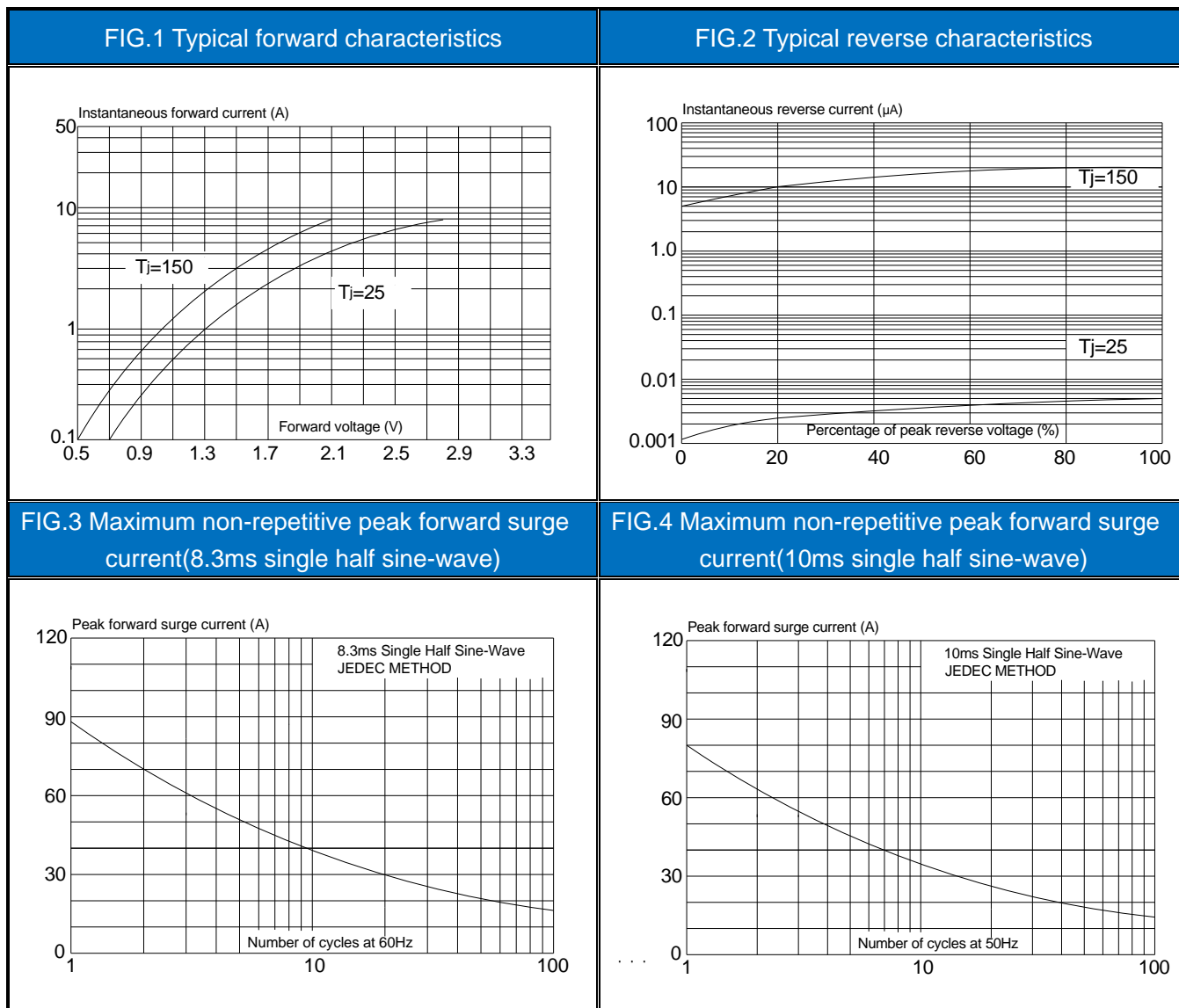




FIG.5 Forward current derating curve

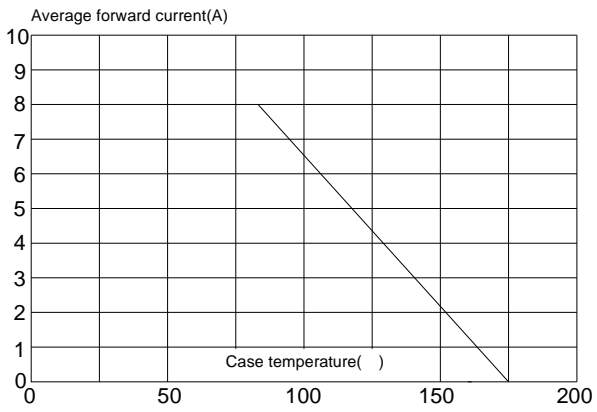


FIG.6 Reverse recovery definitions

