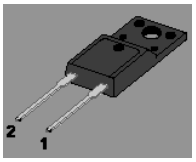
JPCR1506FPL

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 characteristics
Output rectifiers in high-frequency switched-mode power supplies



TO-220FP-2L

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	JPCR1506FPL	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	600	V
Maximum DC blocking voltage	V_{DC}	600	V
=70	$I_{F(AV)}$	15	A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	165	A
Peak forward surge current: 10ms single half sine-wave superimposed on rated load		150	
Junction temperature and storage temperature range	T_j,T_{stg}	-55 to +175	

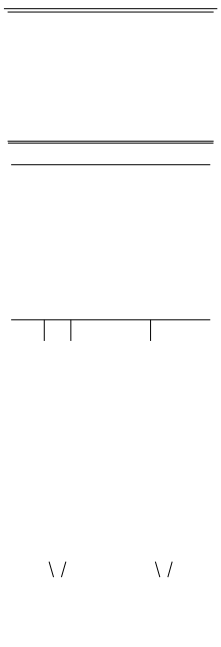
ISOLATION CHARACTERISTICS

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				Typ.		
Forward voltage	I_F=15A,T_j=25	V_F	-	2	2.5	V
	I_F=15A,T_j=150		-	1.35	-	V
Reverse current	V_R=600V,T_j=25	I_R	-	-	5	μA
	V_R=600V,T_j=150		-	-	300	
Reverse recovery time	I_F=1A,V_R=30V, dI_F/dt=200A/μs,T_j=25	t_{rr}	-	20	-	ns
	I_F=15A,V_R=200V, dI_F/dt=200A/μs,T_j=25		-	42	-	
	I_F=15A,V_R=200V, dI_F/dt=200A/μs,T_j=125		-	95	-	
Reverse recovery current	I_F=15A,V_R=200V, dI_F/dt=200A/μs,T_j=25	I_{RM}	-	3	-	A
	I_F=15A,V_R=200V, dI_F/dt=200A/μs,T_j=125		-	8.5	-	
Reverse charge	I_F=15A,V_R=200V, dI_F/dt=200A/μs,T_j=25 =					

MARKING



CHARACTERITICS CURVE

FIG.1: Typical forward characteristics

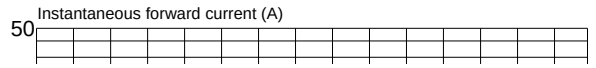


FIG.2: Typical reverse characteristics

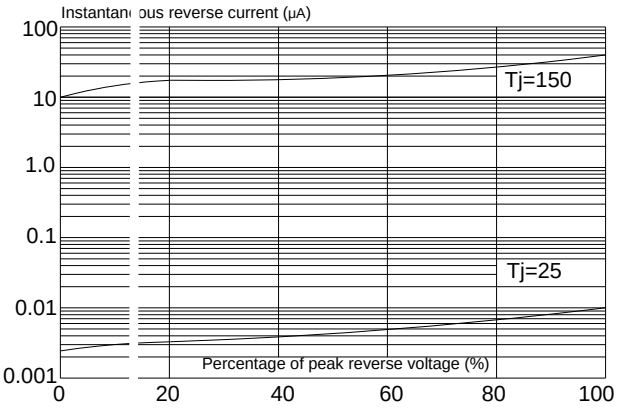
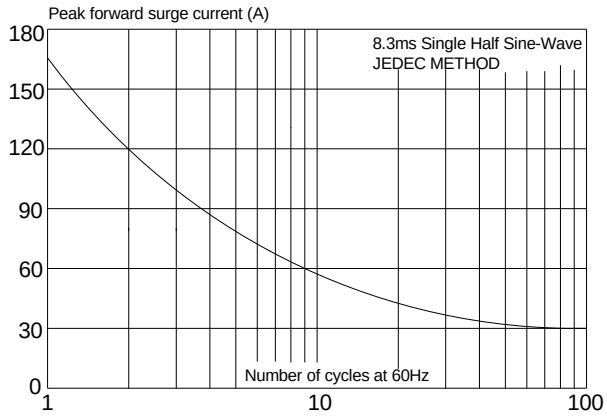
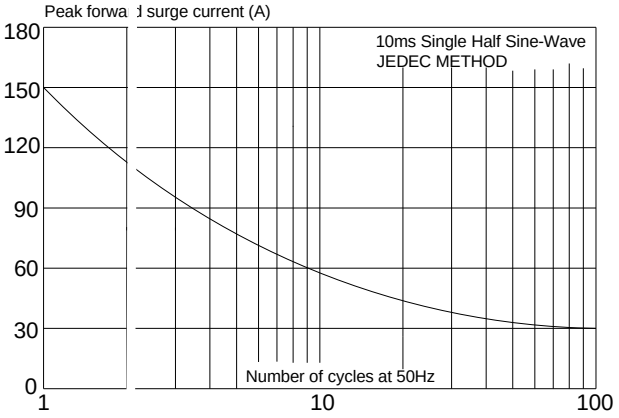


FIG.4: Maximum non-repetitive peak forward surge current(10ms single half sine-wave)





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