JECR7506ZW

EPI 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
- Ultrafast recovery time and soft recovery characteristics
- Low recovery loss
- Active PFC in air conditioner, S.M.P.S Power Factor Correction (PFC) and half bridge l ull-bridge switched-mode power supplies

MECHANICAL DATA

- Case: TO-3P molded plastic over passivated junction
- Terminals: Solder plated, solderable per J-STD-002
- Internally constructed isolated package is offered for ease of heat sinking with highest isolation voltage

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

Parameter	Symbol	JECR7506ZW	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	600	V
Maximum DC blocking voltage	V_{DC}	600	V
Maximum average forward current at Tc=70	$I_{F(AV)}$	75	A
Peak forward surge current: 10ms single half sine-wave superimposed on rated load	I_{FSM}	700	A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load		750	
Junction temperature and storage temperature range	T_j,T_{stg}	-55 to +150	

			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}

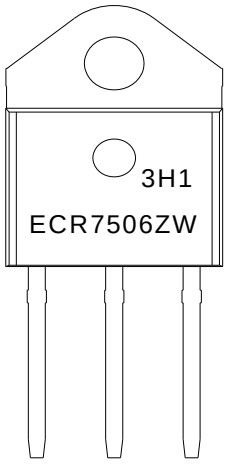
ELECTRICAL CHARACTERISTICS(Rating at 25 case temperature unless otherwise specified.)

Parameter		Symbol	Min.	Typ.	Max.	Unit
Forward voltage	I_F=75A,T_j=25	V_F	-	2.0	2.75	V
	I_F=75A,T_j=150		-	1.3	2.1	
Reverse current	V_R=600V,T_j=25	I_R	-	-	5	μA
	V_R=600V,T_j=150		-	-	500	
Reverse recovery time	I_F=1A,V_R=30V, di/dt=50A/μs,T_j=25	t_{rr}	-	-	50	ns
	I_F=75A,V_R=400V, di/dt=200A/μs,T_j=25		-	50	-	
	I_F=75A,V_R=400V, di/dt=200A/μs,T_j=125		-	110	-	
Peak reverse recovery current	I_F=75A,V_R=400V, di/dt=200A/μs,T_j=25	I_{RM}	-	4.5	-	A
	I_F=75A,V_R=400V, di/dt=200A/μs,T_j=125		-	14	-	
Reverse charge	I_F=75A,V_R=400V, di/dt=200A/μs,T_j=25	Q_r	-	150	-	nC
	I_F=75A,V_R=400V, di/dt=200A/μs,T_j=125		-	650	-	

THERMAL RESISTANCES

Symbol	Parameter	Min.	Typ.	Max.	Unit
$R_{th(j-c)}$	Thermal resistance from junction to case	-	0.9	-	/W

MARKING



ECR	EPI Hyperfast Recovery Rectifier
75	$I_{F(AV)}$=75A
06	V_{RRM}:600V
ZW	Package:TO-3P

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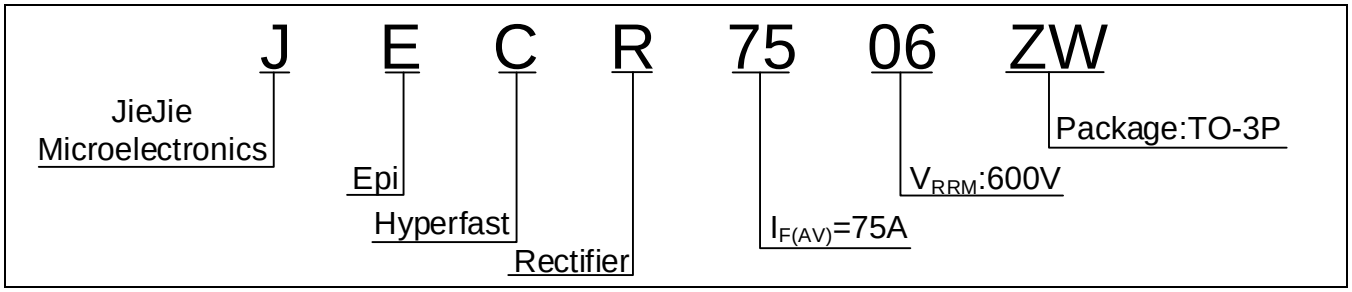
ORDERING INFORMATION



PACKAGE MECHANICAL DATA v d } Ů

CHARACTERITICS CURVE