JECR0802E

EPI HYPERFAST RECOVERY RECTIFIER

Rev.1.7

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 and soft recovery characteristics
Low recovery loss
Applications for switching power supplies, inverters and as free wheeling diodes

TO-263

Symbol

1	No connection
2,4	Cathode
3	Anode

MECHANICAL DATA

Case: TO-263 molded plastic over passivated junction
Terminals: Solder plated, solderable per J-STD-002
Weight:1.55gram

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

Parameter	Symbol	JECR0802E	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	200	V
Maximum RMS voltage	V_{RMS}	140	V
Maximum DC blocking voltage	V_{DC}	200	V
Average forward current at T_C=125	$I_{F(AV)}$	8	A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	100	A
Junction temperature and storage temperature range	T_j,T_{stg}	-55 to +150	

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	-	-	1.1	V
	T_j=150		-	-	1.0	
Reverse current at rated DC blocking voltage	T_j=25	I_R	-	-	5	μA
	T_j=150		-	-	200	
Reverse recovery time	I_F=1A,di/dt= 50A/μs	t_{rr}	-	-	35	ns
	I_F=0.5A,I_R=1A,I_{RR}=0.25A		-	-	25	

THERMAL RESISTANCES

Symbol	Parameter	Min.	Typ.	Max.	Unit
$R_{th(j-c)}$	Thermal resistance from junction to case	-	-	3	/W
$R_{th(j-a)}$	Thermal resistance from junction to ambient	-	60	-	/W

CHARACTERITICS CURVE

FIG.1: Typical forward characteristics	FIG.2: Typical reverse characteristics