JEUR1006K

ULTRAFAST RECOVERY RECTIFIER

Rev.1.6

DESCRIPTION

Plastic package has underwriters laboratory flammability classification 94V-0
For surface mounted applications
Glass passivated chip junction
Lead free in comply with EU RoHS 2011/65/EU directives
Ultrafast recovery time for high efficiency
Applications for discontinuous current mode (DCM) power factor correction (PFC), Home appliance power supply

MECHANICAL DATA

Case: TO-252 molded plastic
Terminals: Solder plated, solderable per J-STD-002
Weight: 0.329 gram

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

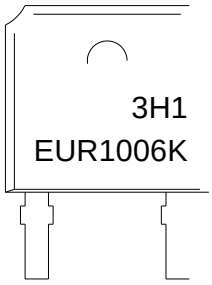
ELECTRICAL CHARACTERISTICS(Rating at 25 ambient temperature unless otherwise specified.)

Parameter		Symbol	Min.	Typ.	Max.	Unit
Forward voltage	I_F=10A,T_j=25	V_F	-	1.25	1.5	V
	I_F=10A,T_j=150		-	1.0	1.3	
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/dt=100A/μs,T_j=25	t_{rr}	-	40	75	ns
	I_F=0.5A, I_R=1A, I_{rr}=0.25A		-	-	50	
Peak reverse recovery current	I_F=1A,V_R=30V, di/dt=50A/μs,T_j=25	I_{RM}	-	1.9	-	A
	I_F=1A,V_R=30V, di/dt=100A/μs,T_j=25		-	2.8	-	
Recovered charge	I_F=1A,V_R=30V, di/dt=100A/μs,T_j=25	Q_r	-	55	-	nC

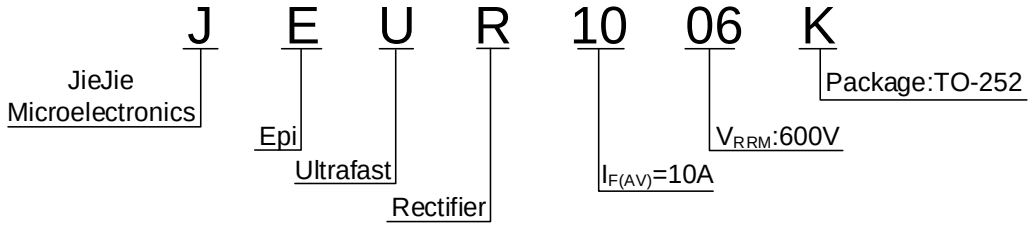
THERMAL RESISTANCES

Symbol	Parameter	Min.	Typ.	Max.	Unit
$R_{th(j-mb)}$	Thermal resistance from junction to mounting base	-	-	2.4	/W
$R_{th(j-a)}$	Thermal resistance from junction to ambient	-	60	-	/W

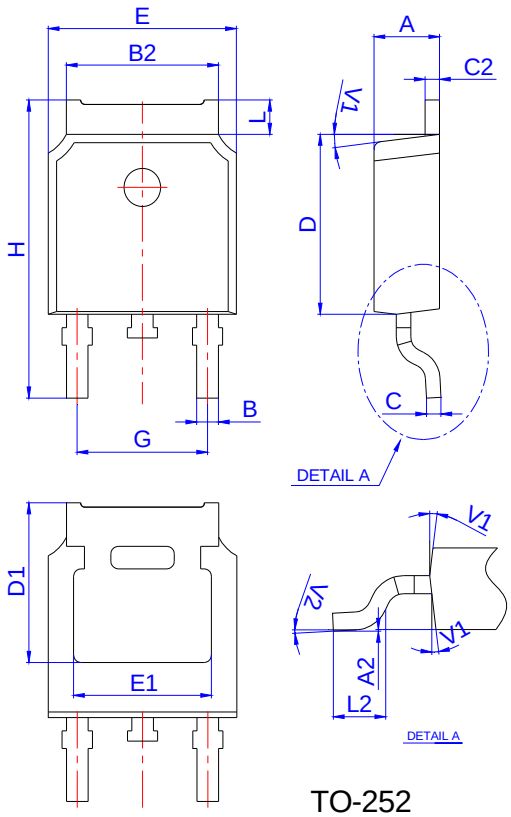
MARKING



ORDERING INFORMATION



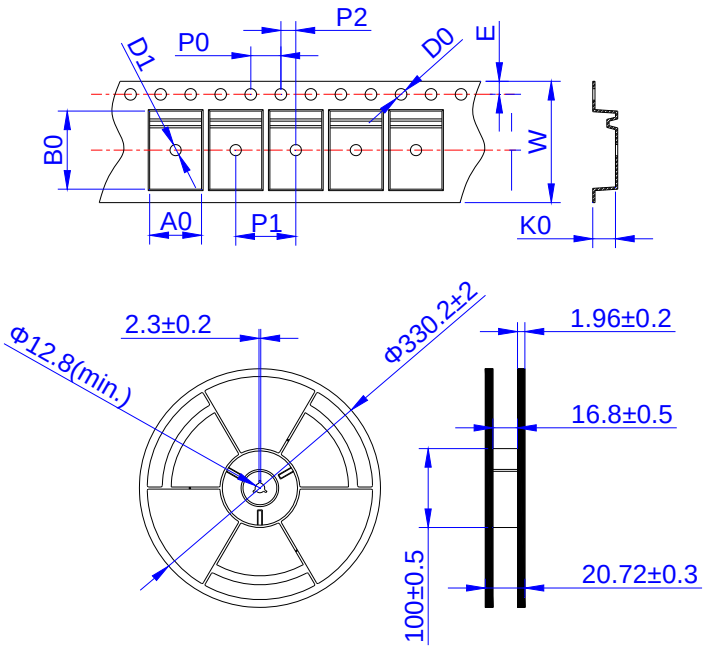
PACKAGE MECHANICAL DATA



TO-252

Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	2.10		2.50	0.083		0.098
A2	0		0.15	0		0.006
B	0.66		0.86	0.026		0.034
B2	5.18		5.48	0.202		0.216
C	0.40		0.60	0.016		0.024
C2	0.44		0.58	0.017		0.023
D	5.90		6.30	0.232		0.248
D1	5.30REF			0.209REF		
E	6.40		6.80	0.252		0.268
E1	4.63			0.182		
G	4.47		4.67	0.176		0.184
H	9.50		10.70	0.374		0.421
L	0.95		1.30	0.037		0.051
L2	1.35		1.65	0.053		0.065
V1		7°			7°	
V2	0°		6°	0°		6°

REEL SPECIFICATION -TO-252



Ref.	Dimensions	
	Millimeters	Inches
W	Max:16.3	Max:0.642
E	1.75±0.10	0.069±0.004
F	7.50±0.10	0.295±0.004
D0	1.55±0.05	0.061±0.002
D1	Min:1.50	Min:0.059
P0	4.00±0.10	0.157±0.004
P1	8.00±0.10	0.315±0.004
P2	2.00±0.10	0.079±0.004
A0	6.90±0.10	0.272±0.004
B0	10.50±0.10	0.413±0.004
K0	2.70±0.10	0.106±0.004
T	0.30±0.05	0.012±0.002

CHARACTERITICS CURVE

FIG.1: Typical forward characteristics

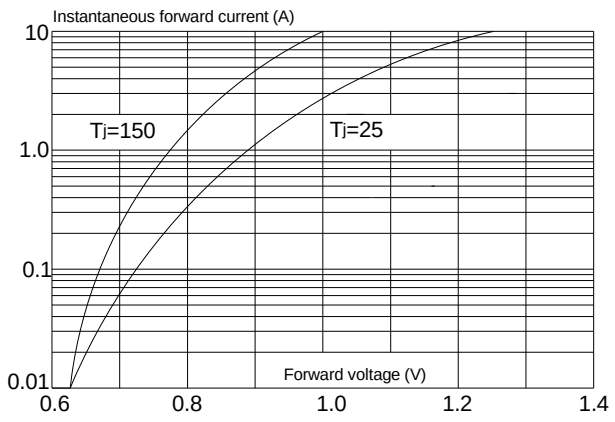


FIG.2: Typical reverse characteristics

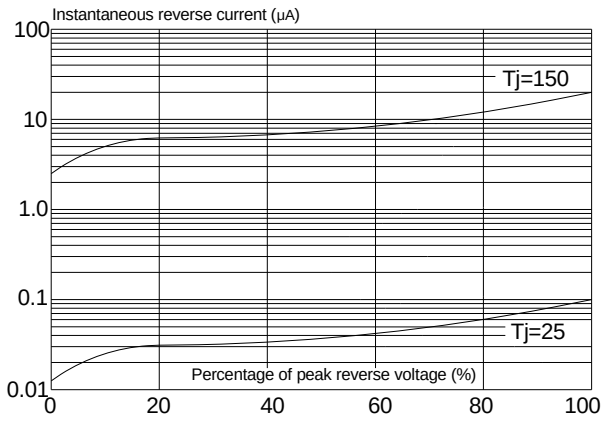


FIG.3: Maximum non-repetitive peak forward surge current(8.3ms single half sine-wave)

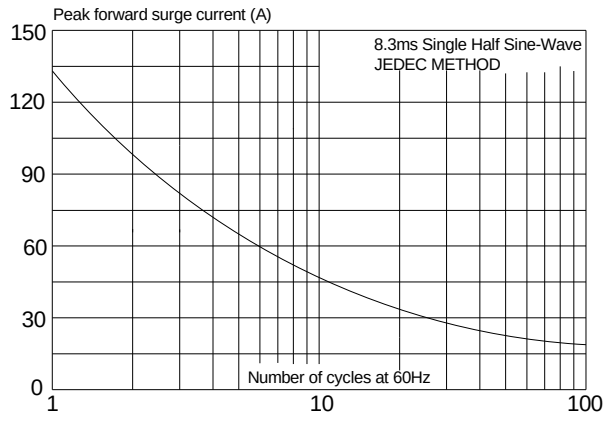


FIG.4: Maximum non-repetitive peak forward surge current(10ms single half sine-wave)

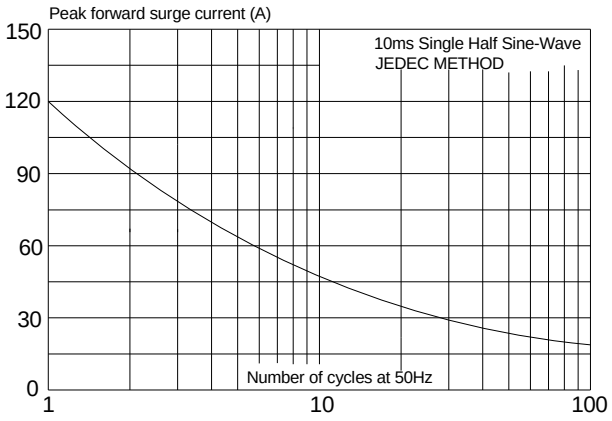


FIG.5: Forward current derating curve

FIG.6: Reverse recovery definitions

0 40 80 12

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