

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated chip junction
- Very high forward surge current capability
- Low forward voltage drop, High current capability
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU

HALOGEN
FREE

MECHANICAL DATA

- Case: ABS molded plastic body
- Terminals: Plated leads solderable per MIL-STD-750, method 2026
- Mounting Position: Any

TYPICAL APPLICATIONS

Used in AC/DC bridge full wave rectification for SMPS, lighting ballaster, adapter, charger, home appliances, office equipment, and telecommunication applications.

MAXIMUM RATINGS

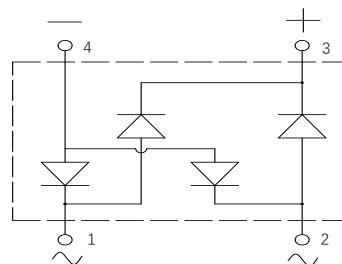
(Ratings at 25°C ambient temperature unless otherwise specified)

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	2000	V
Maximum average forward rectified current	$I_{F(AV)}$	1.0	A
Peak forward surge current 8.3ms single half Sine-wave	I_{FSM}	30	A
Rating for fusing (t=8.3ms)	I^2t	3.735	A ² s
Operating junction temperature range	T_J	-55 to +150	°C
Storage temperature range	T_{stg}	-55 to +150	°C



Marking:

JF: Logo
xxxx: Date code
ABS120: Type
+ -: Polarity



ELECTRICAL CHARACTERISTICS (T_J=25°C Unless otherwise noted)

Parameter	Test Conditions		Symbol	Min.	Typ.	Max	Unit
Breakdown voltage Blocking voltage	I _r =100μA		V _{BR} V _R	2000	-	-	V
Instaneous forward voltage	T _J =25°C	I _f =1.0A	V _F ¹⁾	-	1.03	1.15	V
	T _J =125°C			-	0.97	-	
Reverse current	T _J =25°C	V _R =2000V	I _R ²⁾	-	-	5	μA
	T _J =100°C			-	-	25	μA
	T _J =125°C			-	-	100	
Junction capacitance	4V,1MHz		C _J	-	5.5	-	pF

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle

2.Pulse test: pulse width ≤40ms

THERMAL CHARACTERISTICS

Parameter	Symbol	ABS	Unit
Typical thermal resistance ³⁾	R _{θJA}	62	°C/W
	R _{θJC}	25	

Notes3: Device mounted on FR-4 substrate, 1"×1", 2oz, single-sided, PC boards with 0.56"×0.73" copper pad.

AVAILABLE PACK INFORMATION

Product code	Pack	Reel Size (mm)	Quantity (pcs/reel)	Quantity (reel/box)	Quantity (box/carton)	Quantity (K/carton)
ABS120-ABS	T/R	Φ330	3000	2	8	48

FIG.1-FORWARD CURRENT DERATING CURVE

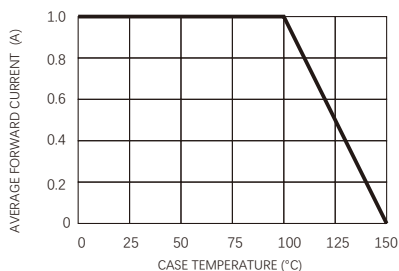


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

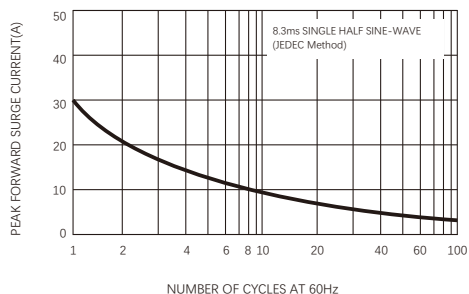


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

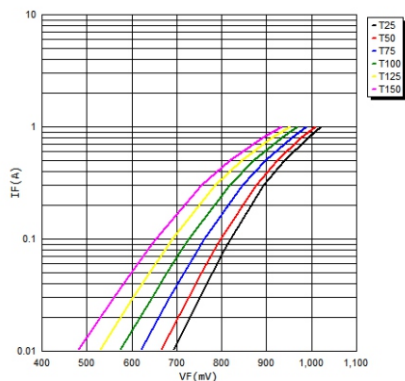


FIG.4-TYPICAL REVERSE CHARACTERISTICS

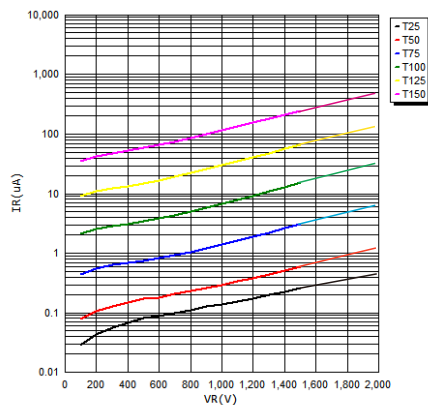
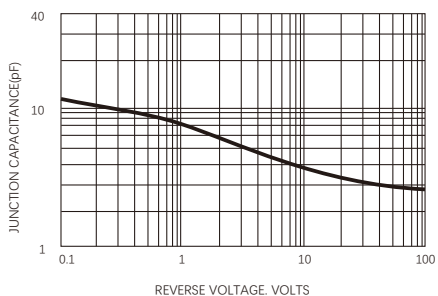
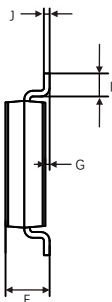
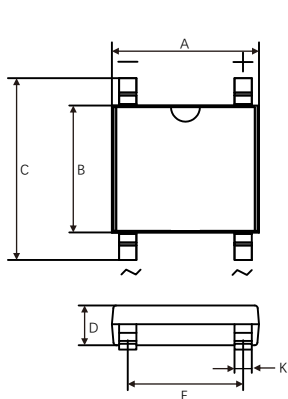


FIG.5-TYPICAL JUNCTION CAPACITANCE



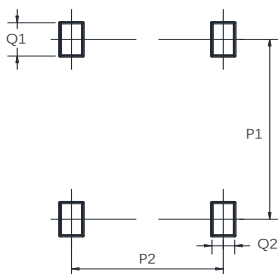
PACKAGE OUTLINE DIMENSIONS

ABS



UNIT:mm		
DIM	MIN	MAX
A	4.80	5.40
B	4.20	4.60
C	6.00	6.80
D	1.20	1.50
E	3.80	4.40
F	1.22	1.60
G	0.05	0.15
I	0.30	0.80
J	0.10	0.30
K	0.50	0.85

Suggested solder pad layout



Dim	Min
P1	5.72
P2	4.00
Q1	1.00
Q2	0.90

Dimensions in millimeters

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