



25A SURFACE MOUNT BRIDGE RECTIFIER

FEATURES:

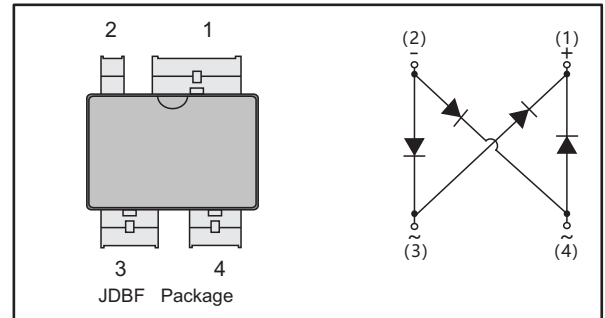
- Reverse Voltage - 600 V
- Forward Current - 25 A
- High Surge Current Capability
- Designed for Surface Mount Application

MECHANICAL DATA

- Case: JDBF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 2.745g / 0.0968oz

PINNING

PIN	DESCRIPTION
1	Output Anode (+)
2	Output Cathode (-)
3	Input Pin (~)
4	Input Pin (~)



Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	JDBFC25J	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	600	V
Maximum RMS voltage	V_{RMS}	420	V
Maximum DC Blocking Voltage	V_{DC}	600	V
Average Rectified Output Current	I_O	25	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	270	A
I^2t Rating for Fusing $t=8.3ms$	I^2t	302	A ² S
Maximum Forward Voltage Per Diode at 12.5 A	V_F	1.0	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	5 100	μA
Typical Junction Capacitance (Note1)	C_j	200	pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	25 5 10	$^{\circ}C/W$
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	$^{\circ}C$

Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.

2. Mounted on glass epoxy PC board with 4×3.81cm ×3.81cm copper pad.



Fig.1 Average Rectified Output Current Derating Curve

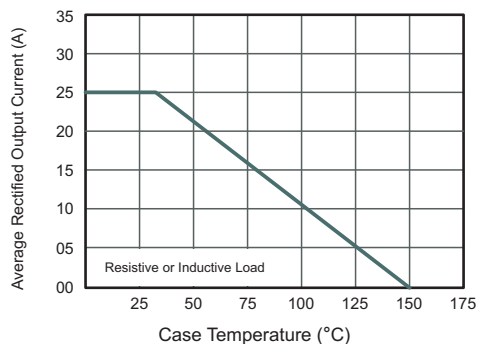


Fig.2 Typical Reverse Characteristics

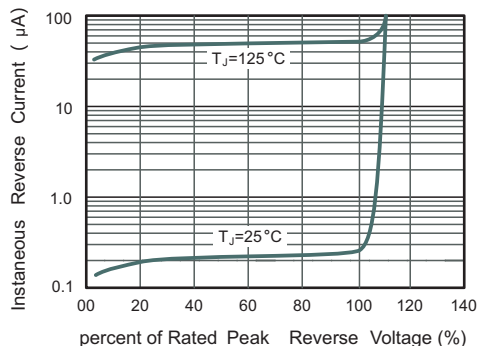


Fig.3 Typical Instantaneous Forward Characteristics

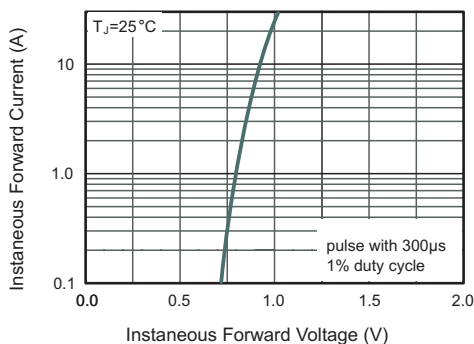


Fig.4 Typical Junction Capacitance

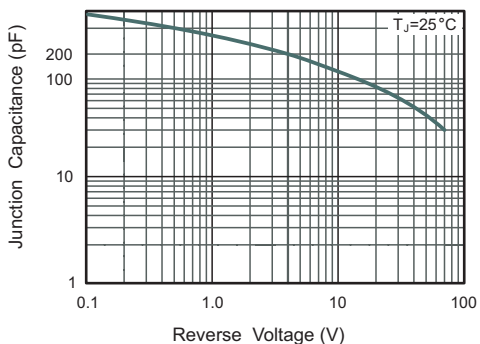
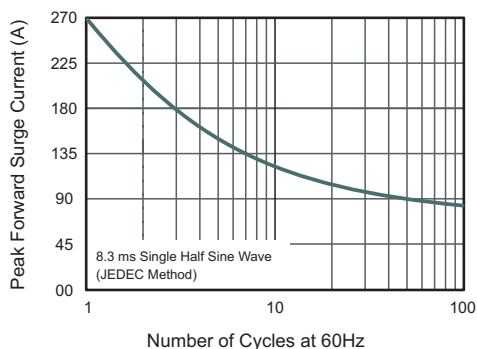


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

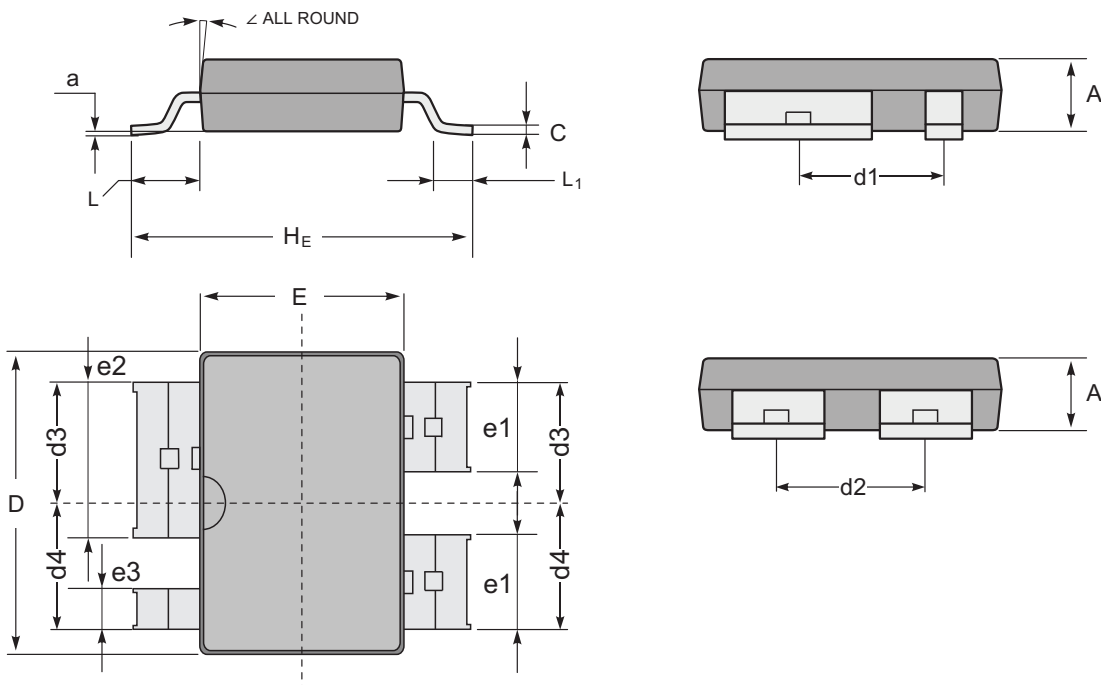




PACKAGE OUTLINE

Plastic surface mounted package; 4 leads

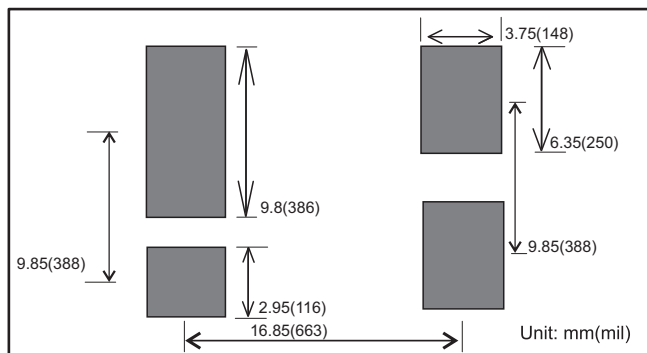
JDBF



Mechanical data

Unit		A	C	D	E	HE	e1	e2	e3	d1	d2	d3	d4	L	L1	a	∠
mm	max	3.9	0.50	20.9	13.6	20.5	6.35	9.8	2.95	9.85		8.0	3.85	2.72	0.19 (ref.)	12°	
	nom	3.6	0.40	20.4	13.1	20.0	6.05	9.5	2.65	9.55		7.8	3.45	2.32			
	min	3.3	0.30	19.9	12.6	19.5	5.75	9.2	2.35	9.25		7.6	3.05	1.92			
mil	max	153.5	19.7	822.8	535.4	807.1	250.0	385.8	116.1	387.8		315.0	151.6	107.1	7.5 (ref.)	12°	
	nom	141.7	15.8	803.1	515.7	787.4	238.2	374.0	104.3	376.0		307.1	135.8	91.3			
	min	129.9	11.8	783.5	496.1	767.7	226.4	362.2	92.5	364.2		299.2	120.1	75.6			

The recommended mounting pad size



Marking

Type number	Marking code
JDBFC25J	JDBFC25J



文件履历表

序号	制/修订日期	生效日期	版次	修订内容	变更原因	制/修订人	备注
01	2023. 8. 16	2023. 8. 18	Rev 1. 1	初版制定	/	郭金铮	



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