



## Glass Passivated Bridge Rectifiers

**Reverse Voltage - 50 to 1000 Volts**  
**Forward Current - 4.0 Amperes**

### Features

- Glass passivated chip
- Low forward voltage drop
- Ideal for printed circuit board
- High surge current capability
- Meet UL flammability classification 94V-0

### Mechanical Data

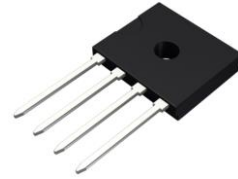
- Polarity: Symbol marked on body
- Mounting position: Any

Note: Products with logo  or  are made by HY Electronic (Cayman) Limited.

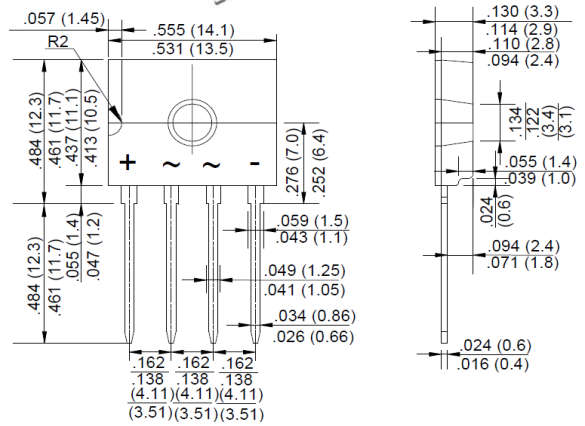
### Applications

- General purpose use in AC/DC bridge full wave rectification, for SMPS, lighting ballaster, adapter, etc.

### D3K



RoHS  
COMPLIANT



Package Outline Dimensions in Inches (Millimeters)

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristics	Symbol	D4KB05	D4KB1	D4KB2	D4KB4	D4KB6	D4KB8	D4KB10	UNIT	
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V	
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V	
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V	
Maximum Average Forward Rectified Current at	I <sub>(AV)</sub>	@T <sub>c</sub> =138 °C (with heatsink)				4				A
		@T <sub>A</sub> =25 °C (without heatsink)				2.3				
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>					135				A
I <sup>2</sup> t Rating for Fusing (t<8.3ms)	I <sup>2</sup> t					75.6				A <sup>2</sup> s
Peak Forward Voltage Per Diode at 2.0A DC	V <sub>F</sub>					0.95				V
Peak Forward Voltage per Diode at 4.0A DC	V <sub>F</sub>					1.05				V
Typical Thermal Resistance to Ambient (without heatsink)	R <sub>θJA</sub>					36				°C/W
Typical Thermal Resistance to case (with heatsink (Note2))	R <sub>θJC</sub>					1.5				°C/W
Typical Thermal Resistance to lead (without heatsink)	R <sub>θJL</sub>					9				°C/W
Maximum DC Reverse Current at Rated @T <sub>J</sub> =25°C	I <sub>R</sub>					5.0				μA
DC Blocking Voltage per Diode @T <sub>J</sub> =125°C						500				
Typical Junction Capacitance (Note3)	C <sub>J</sub>					33				pF
Operating Junction Temperature Range	T <sub>J</sub>					-55 to +150				°C
Storage Temperature Range	T <sub>STG</sub>					-55 to +150				°C

Notes: 1. Device mounted on 50mm\*50mm\*1.6mm Cu plate heatsink.

2. The typical data above is for reference only

3. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.



Fig. 1 - Forward Current Derating Curve

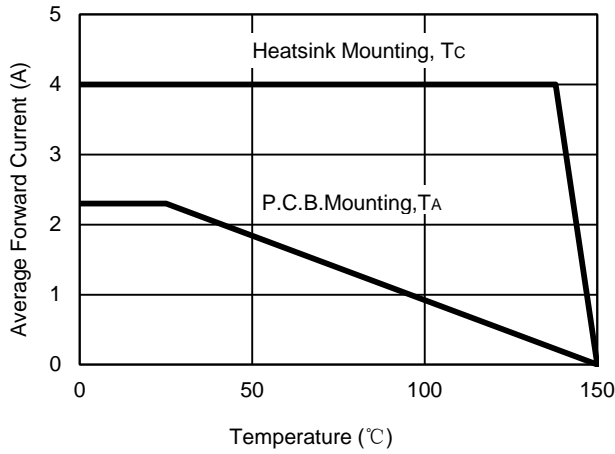


Fig. 2 - Maximum Non-Repetitive Surge Current

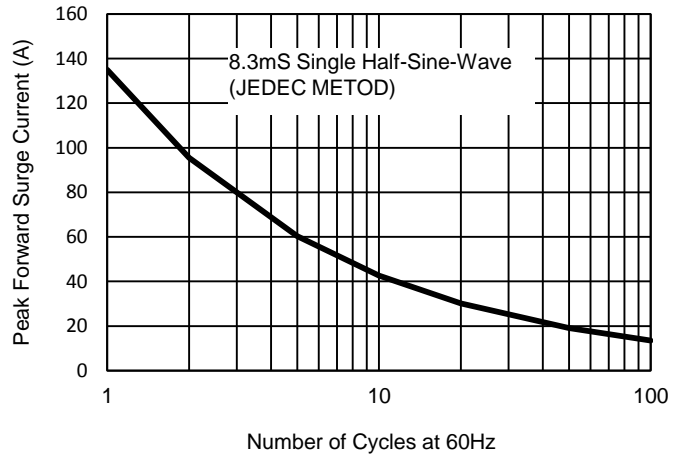


Fig. 3 - Typical Reverse Characteristics

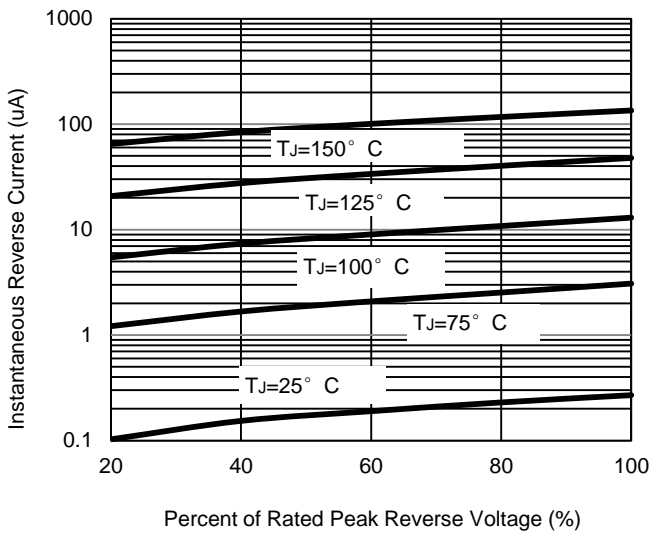


Fig. 4 - Typical Forward Characteristics

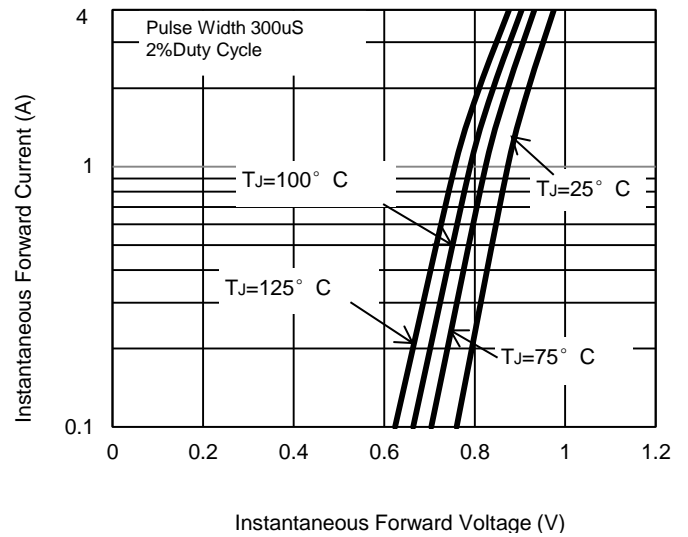
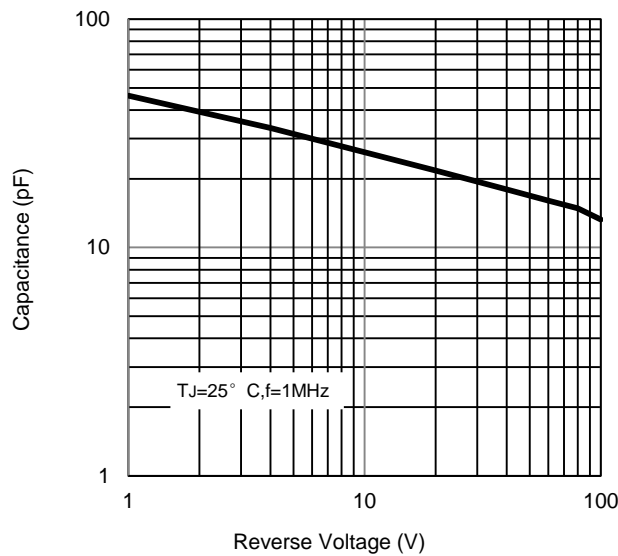


Fig. 5 - Typical Junction Capacitance



The curve above is for reference only.



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ALL specifications and data are subject to be changed without notice to improve reliability function or design etc.

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