D4KB05 THRU D4KB10

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

Mechanical Data

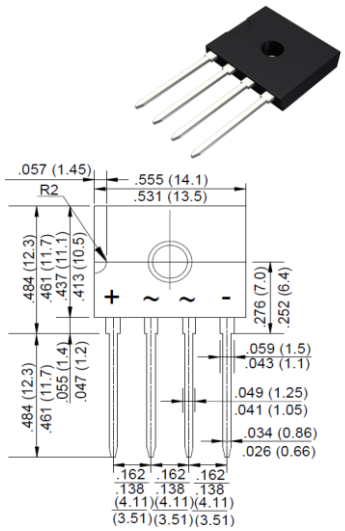
- Polarity: Symbol marked on body
- Mounting position: Any

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℃ 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_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T_C=138 ℃(with heatsink)	$I_{(AV)}$	4							A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I_{FSM}	135							A
I^2t Rating for Fusing (t<8.3mS)	I^2t	75.6							A^2s
Peak Forward Voltage Per Diode at 2.0A DC	V_F	0.95							V
Peak Forward Voltage per Diode at 4.0A DC	V_F	1.05							V
Typical Thermal Resistance to Ambient （without heatsink）	$R_{\theta JA}$	36							℃/W
Typical Thermal Resistance to case （with heatsink (Note2) ）	$R_{\theta JC}$	1.5							℃/W
Typical Thermal Resistance to lead （without heatsink）	$R_{\theta JL}$	9							℃/W
Maximum DC Reverse Current at Rated @T_J=25℃	I_R	5.0							μA
DC Blocking Voltage per Diode @T_J=125℃		500							
Operating Junction Temperature Range	T_J	-55 to +150							℃
Storage Temperature Range	T_{STG}	-55 to +150							℃

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

2.The typical data above is for reference only

Rating and Characteristic Curves

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Fig. 1 - Forward Current Derating Curve

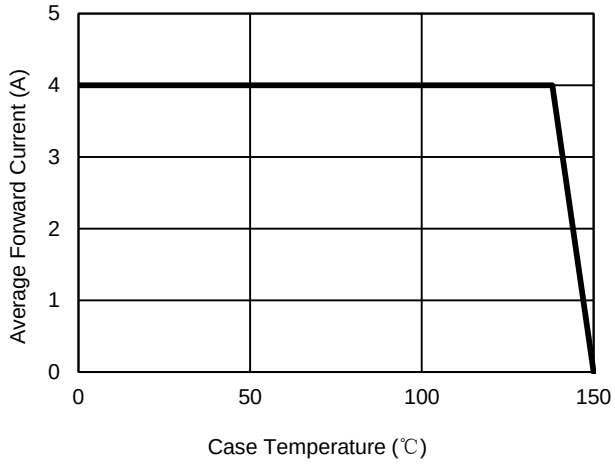


Fig. 2 - Maximum Non-Repetitive Surge Current

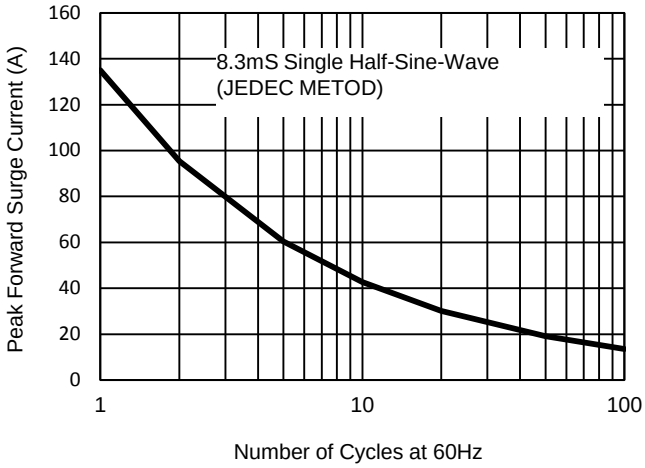


Fig. 3 - Typical Reverse Characteristics

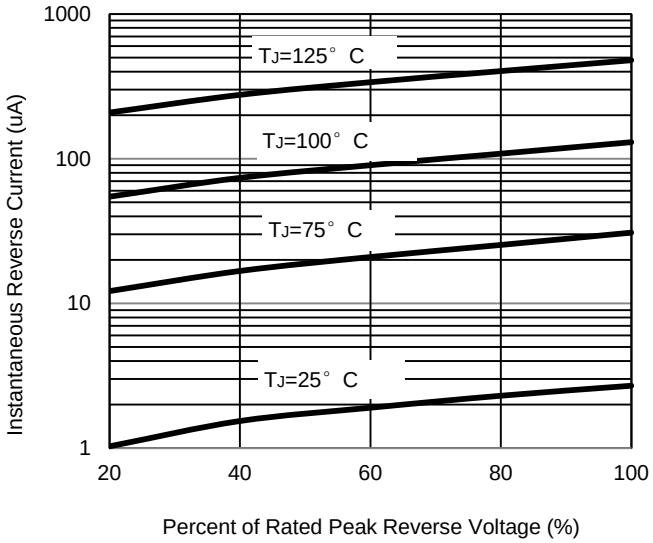
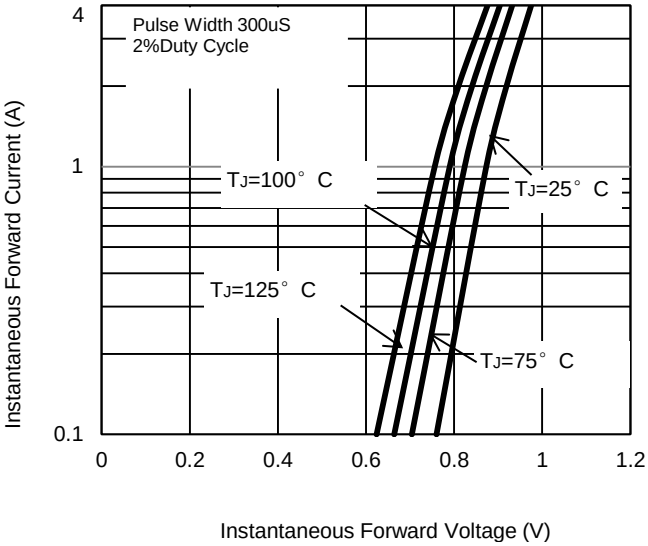


Fig. 4 - Typical Forward Characteristics



The curve above is for reference only.