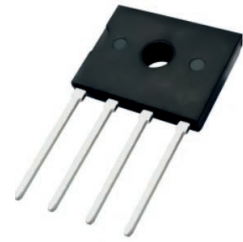


GSD3K4005 thru GSD3K410

General Purpose Bridge Rectifiers
Reverse Voltage 50V-1000V Forward Current 4A

Features

- Plastic package has underwriters laboratory flammability classification 94V-0
- Glass passivated chip junction
- High current capability
- Low forward voltage drop
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU



D3K

Mechanical Data

- Case: D3K molded plastic body
- Terminals: Plated leads solderable per MIL-STD-750, method 2026
- Mounting position: Any



Maximum Ratings and Electrical Characteristics

(Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, resistive or inductive load.
For capacitive load, derate by 20%.)

Parameters		Symbol	GSD3 K4005	GSD3 K401	GSD3 K402	GSD3 K404	GSD3 K406	GSD3 K408	GSD3 K410	Units
Maximum Repetitive Reak 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 =135°C with Heatsink	I _{F(AV)}	4.0							A
	T _A =25°C without Heatsink		1.5							
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load		I _{FSM}	120							A
Rating for Fusing (t=8.3ms)		I ² t	59.8							A ² S
Maximum Instantaneous Forward Voltage at I _F =2.0A DC		V _F	1.0							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _J =25°C	I _R	5.0							μA
	T _J =125°C		100							μA
Typical Thermal Resistance Junction to Ambient ²		R _{θJA}	55							°C/W
Typical Thermal Resistance Junction to Case ²		R _{θJC}	1.5							
Typical Junction Capacitance ¹		C _J	50							pF
Operating and Storage Temperature Range		T _J , T _{STG}	-55 to +150							°C

Notes:

- Measured at 1MHz and applied reverse voltage of 4.0 Volts.
- Device mounted on FR-4 PCB with 75mm x 45mm x 5.5mm aluminum heatsink.

Ratings and Characteristics Curves

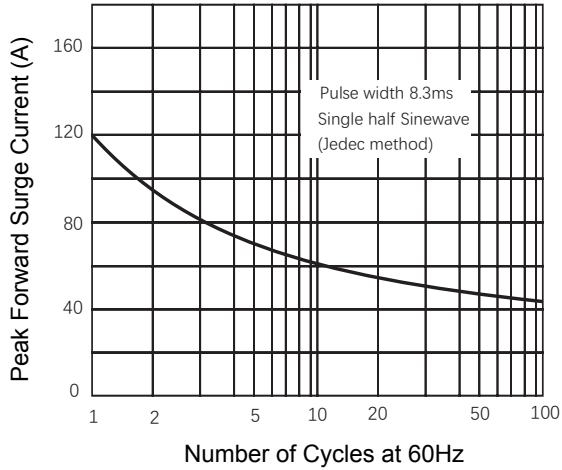


Figure 1. Maximum Forward Surge Current

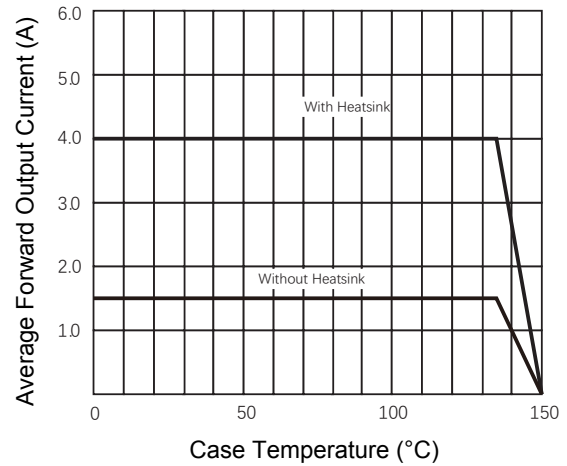


Figure 2. Forward Current Derating Curve

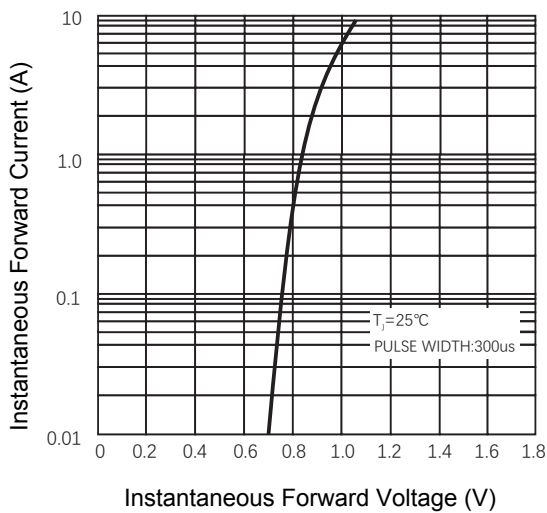


Figure 3. Typical Forward Characteristics

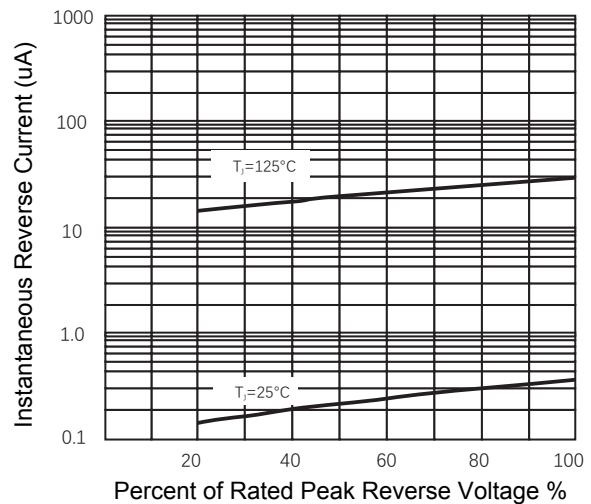
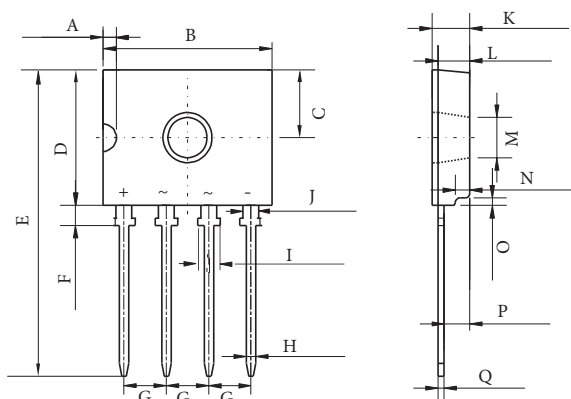


Figure 4. Typical Reverse Characteristics

GSD3K4005 thru GSD3K410

General Purpose Bridge Rectifiers
Reverse Voltage 50V-1000V Forward Current 4A

Package Outline Dimensions (D3K)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.80 REF		0.031 REF	
B	13.50	14.10	0.531	0.555
C	4.80	5.20	0.189	0.205
D	10.50	11.10	0.413	0.437
E	23.70	24.30	0.933	0.957
F	1.10	1.30	0.043	0.051
G	3.51	4.11	0.138	0.162
H	0.66	0.86	0.026	0.034
I	1.05	1.45	0.041	0.057
J	1.05	1.25	0.041	0.049
K	2.90	3.30	0.114	0.130
L	2.40	2.80	0.094	0.110
M	3.10	3.40	0.122	0.134
N	1.00	1.40	0.039	0.055
O	0.50	0.70	0.020	0.028
P	1.80	2.40	0.071	0.094
Q	0.40	0.60	0.016	0.024

Order Information

Device	Package	Marking	Carrier	Quantity
GSD3K4005	D3K	D3K4005	Box	1,500pcs / Box
GSD3K401	D3K	D3K401	Box	1,500pcs / Box
GSD3K402	D3K	D3K402	Box	1,500pcs / Box
GSD3K404	D3K	D3K404	Box	1,500pcs / Box
GSD3K406	D3K	D3K406	Box	1,500pcs / Box
GSD3K408	D3K	D3K408	Box	1,500pcs / Box
GSD3K410	D3K	D3K410	Box	1,500pcs / Box

For more information, please contact us at: inquiry@goodarksemi.com