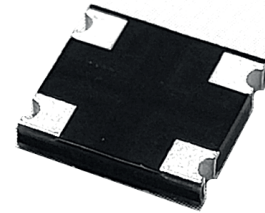


## Features

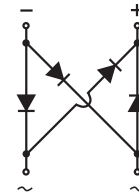
- Halogen-free type
- Compliance to RoHS product
- Lead less chip form, no lead damage
- Low power loss, High efficiency
- High current capability
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0



K5

## Mechanical Data

- Case: Packed with FRP substrate and epoxy underfilled
- Terminals : Pure tin plated (Lead-Free), solderable per MIL-STD-750, Method 2026.
- Polarity : Laser marking symbols
- Weight : 0.07 gram



Schematic Diagram

## Applications

- Suitable for battery - powered circuits
- Communication equipment

## Absolute Maximum Ratings ( $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	GSBK02K504	GSBK02K506	GSBK02K510	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	40	60	100	V
Average Forward Current	$I_{F(AV)}$	2.0			A
Peak Forward Surge Current (8.3ms Single Half Sine-Wave)	$I_{FSM}$	50			A
Thermal Resistance Junction to Ambient <sup>1</sup>	$R_{th(JA)}$	110			°C/W
Thermal Resistance Junction to Lead <sup>1</sup>	$R_{th(JL)}$	15			
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +125			°C

Note:

1. Thermal resistance, junction to ambient, measured on PC board with 5.0mm<sup>2</sup> (0.03mm thick) land areas.

## Electrical Characteristics ( $T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward Voltage	$V_F$	$I_F=2.0A$	-	0.49	0.52	V
			-	0.60	0.70	V
			-	0.80	0.85	V
Repetitive Peak Reverse Current	$I_{RRM}$	$V_R=\text{Max. } V_{RRM}, T_A=25^\circ\text{C}$	-	0.025	0.20	mA
Junction Capacitance	$C_J$	$V_R=4V, F=1.0\text{MHz}$	-	250	-	pF

# GSBK02K504 thru GSBK02K510

Schottky Bridge Rectifiers  
 Reverse Voltage 40V to 100V Forward Current 2.0A

## Ratings and Characteristic Curves

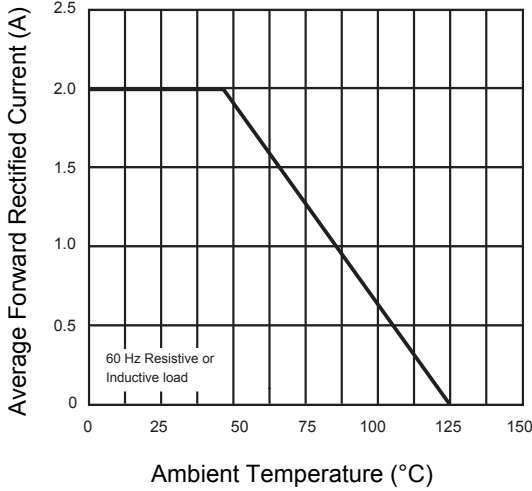


Figure 1. Forward Current Derating Curve

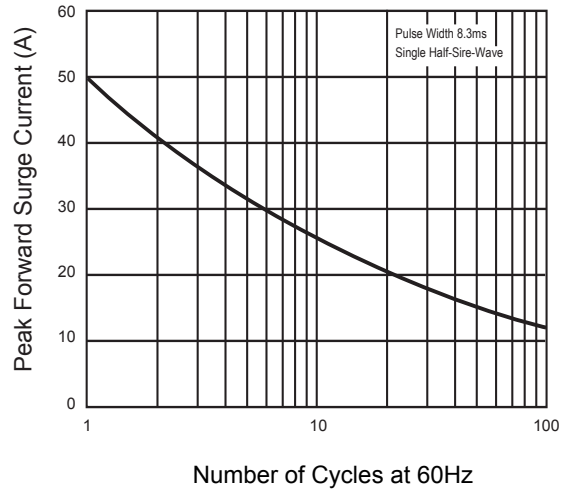


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

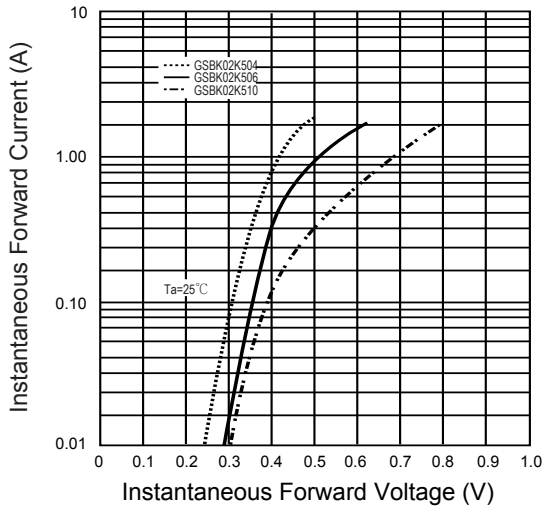


Figure 3. Typical Instantaneous Forward Characteristics

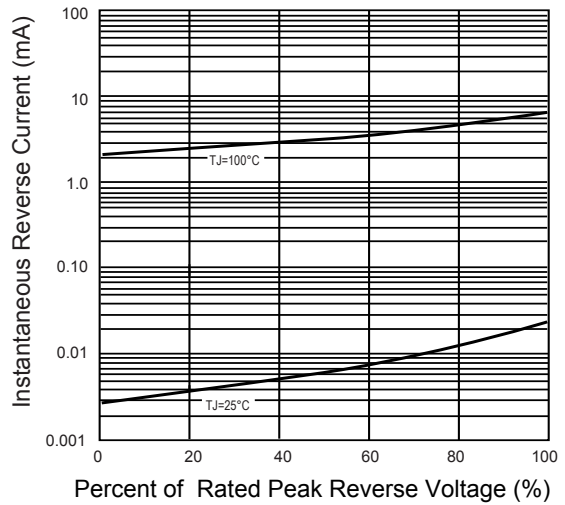


Figure 4. Typical Reverse Characteristics

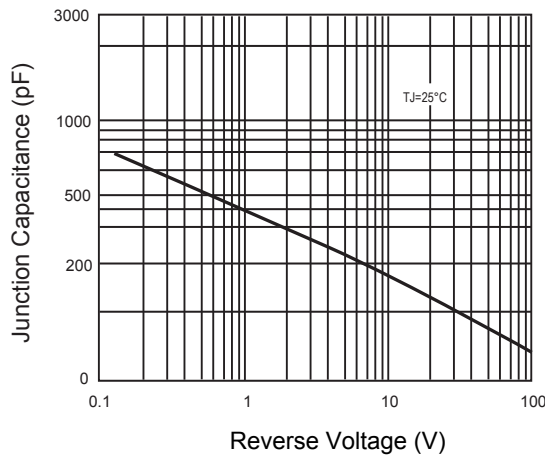
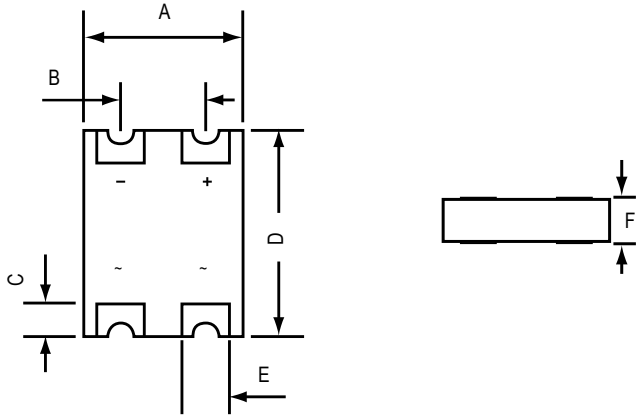


Figure 5. Typical Junction Capacitance

# GSBK02K504 thru GSBK02K510

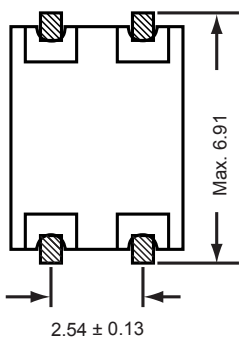
Schottky Bridge Rectifiers  
 Reverse Voltage 40V to 100V Forward Current 2.0A

## Package Outline Dimensions (K5)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	4.65	4.85	0.183	0.191
B	2.49	2.59	0.098	0.102
C	0.95	1.05	0.037	0.041
D	6.05	6.25	0.238	0.246
E	1.30	1.50	0.051	0.059
F	0.92	1.22	0.036	0.048

## Recommended Pad Layout



Unit: mm

## Order Information

Device	Package	Marking	Quantity	HSF Status
GSBK02K504	K5	SMBC204	5,000pcs / Reel	RoHS Compliant
GSBK02K506	K5	SMBC206	5,000pcs / Reel	RoHS Compliant
GSBK02K510	K5	SMBC210	5,000pcs / Reel	RoHS Compliant