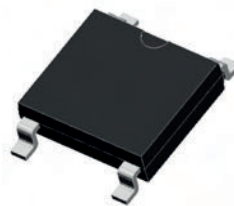
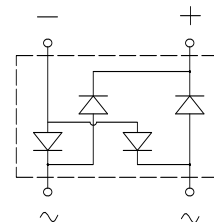


Features

- Plastic package has underwriters laboratory flammability classification 94V-0
- Metal silicon junction, majority carrier conduction
- Guard ring for over voltage protection
- Low forward voltage drop, high current capability
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU



ABS



Schematic Diagram

Mechanical Data

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

Applications

Used in low voltage high frequency rectification circuit for SMPS, lighting ballaster, adapter, charger, home appliances, office equipment, and telecommunication applications.

Maximum Ratings (Rating at 25°C ambient temperature unless otherwise specified)

Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	2.0	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave	I_{FSM}	50	A
Rating for Fusing (t=8.3ms)	I^2t	10.375	A ² s
Typical Thermal Resistance, Junction-Ambient ³	$R_{\theta JA}$	62	°C/W
Typical Thermal Resistance, Junction-Case ³	$R_{\theta JC}$	13	
Operating Junction Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

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

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Breakdown Voltage	V_{BR}	$I_R=200\mu\text{A}$	100	-	-	V
Blocking Voltage	V_R					
Instaneous Forward Voltage	V_F^1	$T_J=25^\circ\text{C}$	$I_F=0.5\text{A}$	-	0.62	V
			$I_F=1.0\text{A}$	-	0.71	
			$I_F=2.0\text{A}$	-	0.78	
		$T_J=125^\circ\text{C}$	$I_F=0.5\text{A}$	-	0.50	
			$I_F=1.0\text{A}$	-	0.55	
			$I_F=2.0\text{A}$	-	0.62	
Reverse Current	I_{R^2}	$T_J=25^\circ\text{C}$	-	-	5.0	μA
		$T_J=125^\circ\text{C}$	-	-	2.5	mA
Junction Capacitance	C_J	4V, 1MHz	-	60	-	pF

Notes:

- Pulse test: 300 μs pulse width, 1% duty cycle.
- Pulse test: pulse width $\leq 40\text{ms}$.
- Device mounted on FR-4 substrate, 1oz/Ft², single-sided, PC boards with 2mm*2mm copper pad.

Ratings and Characteristics Curves

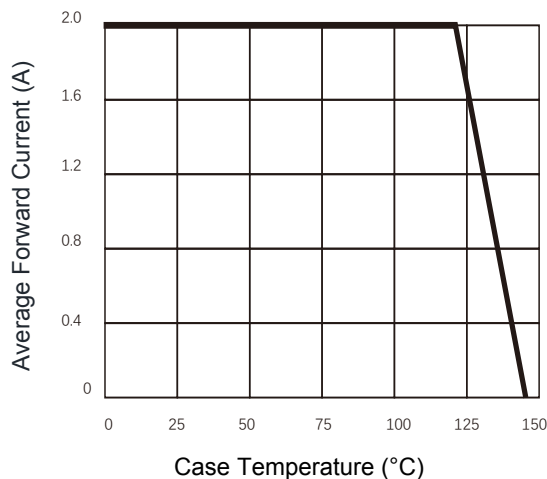


Figure 1. Forward Current Derating Curve

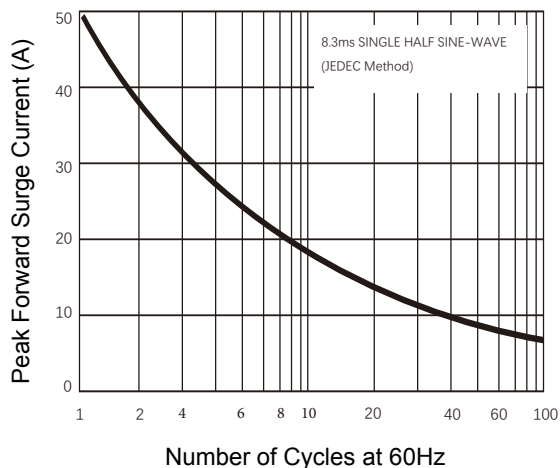


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

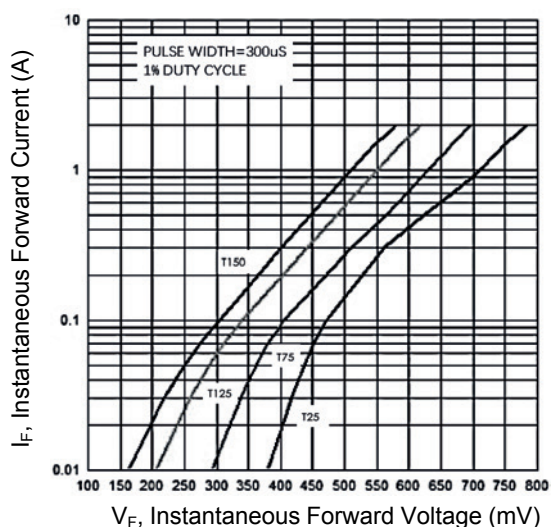


Figure 3. Typical Instantaneous Forward Characteristics

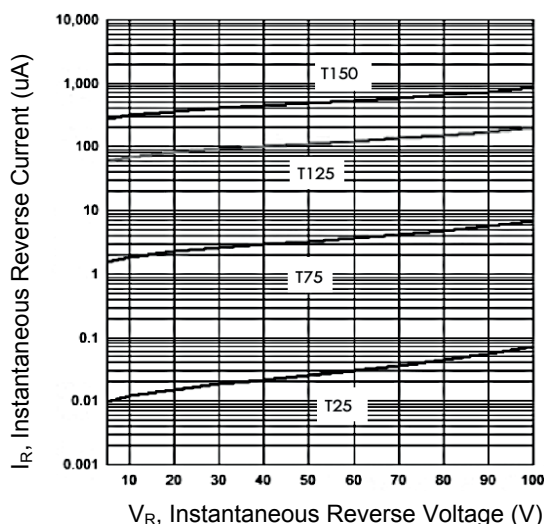


Figure 4. Typical Reverse Characteristics

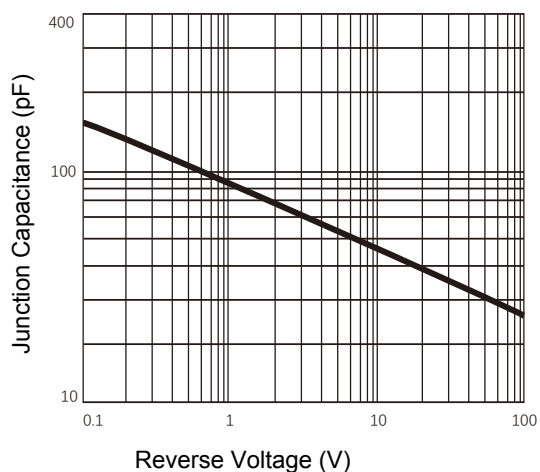
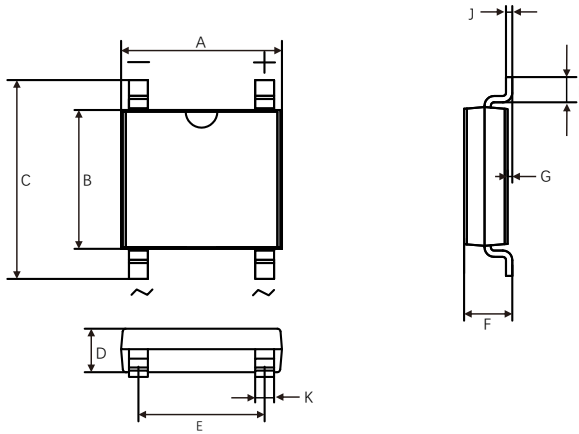


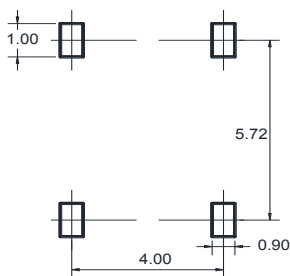
Figure 5. Typical Junction Capacitance

Package Outline Dimensions (ABS)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	4.80	5.40	0.189	0.213
B	4.20	4.60	0.165	0.181
C	6.00	6.80	0.236	0.268
D	1.20	1.50	0.047	0.059
E	3.80	4.40	0.150	0.173
F	1.22	1.60	0.048	0.063
G	0.05	0.15	0.002	0.006
I	0.30	0.80	0.012	0.031
J	0.10	0.30	0.004	0.012
K	0.50	0.85	0.020	0.033

Recommended Pad Layout



Unit: mm

Order Information

Device	Package	Marking	Carrier	Quantity
GSABS210K	ABS	ABS210K	Tape & Reel	3,000pcs / Reel