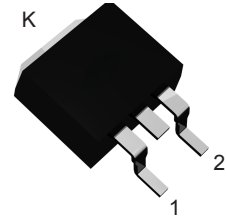
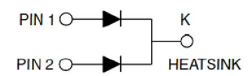


Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Guard ring for over-voltage protection
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- Single rectifier construction
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed: 260°C/10 seconds
- Component in accordance to RoHS 2011/65/EU



TO-263



Schematic Diagram

Mechanical Data

- Case: JEDEC TO-263 molded plastic body
- Terminals: Solderable per MIL-STD-202, method 208
- Polarity: As marked
- 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	GSMBRB 4035CT	GSMBRB 4040CT	GSMBRB 4045CT	GSMBRB 4060CT	GSMBRB 40100CT	GSMBRB 40150CT	GSMBRB 40200CT	Unit	
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	35	40	45	60	100	150	200	V	
Maximum RMS Voltage		V_{RMS}	25	28	32	42	70	105	140	V	
Maximum DC Blocking Voltage		V_{DC}	35	40	45	60	100	150	200	V	
Maximum Average Forward Rectified Current (See Fig.1)	Per Leg	$I_{(AV)}$	20.0							A	
	Total Device		40.0								
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)		I_{FSM}	300.0							A	
Maximum Instantaneous Forward Voltage at 20.0A Per Leg		V_F	0.60			0.75	0.85	0.90	0.95	V	
Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage ¹	$T_A=25^\circ\text{C}$	I_R	200				50				uA
	$T_A=100^\circ\text{C}$		5				-				mA
	$T_A=125^\circ\text{C}$		-				5				
Typical Thermal Resistance, Junction to Case ²		$R_{\theta JC}$	2.5							°C/W	
Operating Junction Temperature Range		T_J	-55 to +150							°C	
Storage Temperature Range		T_{STG}	-55 to +150							°C	

Notes:

1. Pulse test: 300µs pulse width, 1% duty cycle.
2. Thermal resistance from junction to case.

Ratings and Characteristics Curves

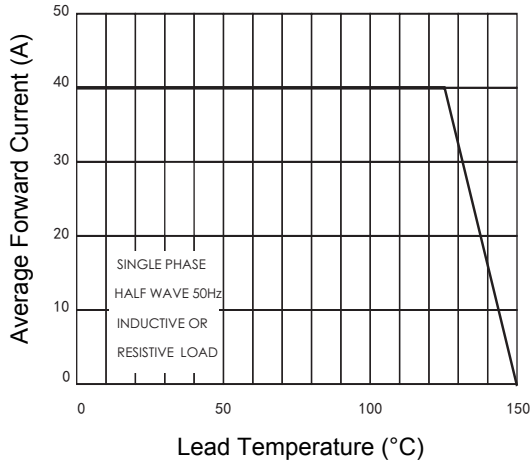


Figure 1. Forward Current Derating Curve

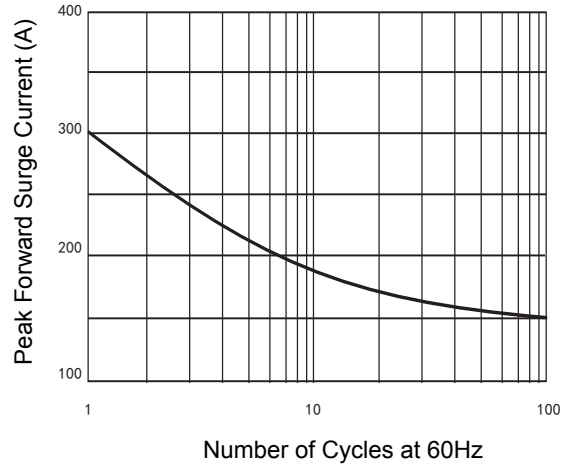


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

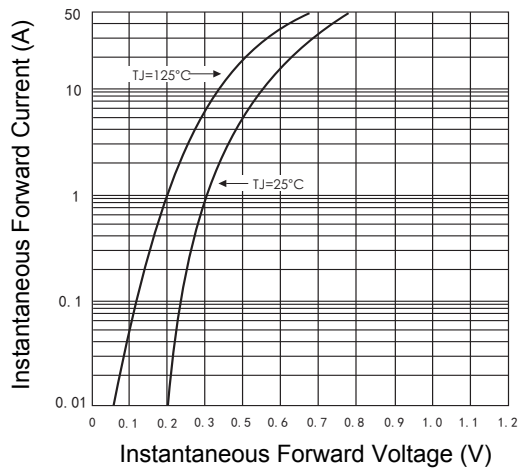


Figure 3. Typical Instantaneous Forward Characteristics

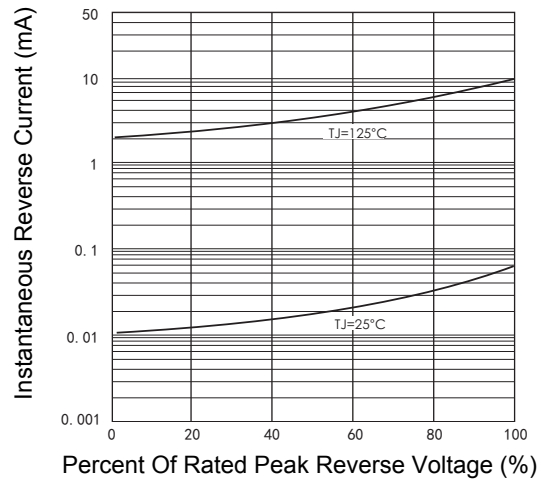


Figure 4. Typical Reverse Characteristics

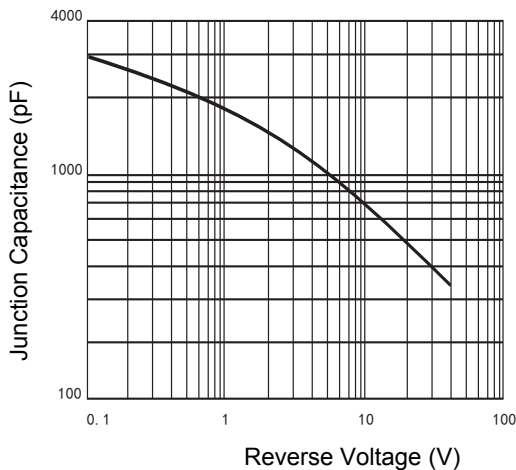
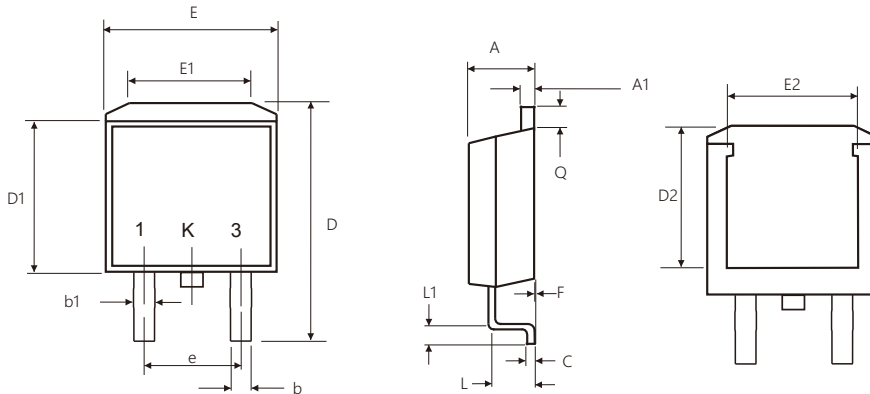


Figure 5. Typical Junction Capacitance

Package Outline Dimensions (TO-263)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	4.06	4.83	0.160	0.190
A1	1.14	1.40	0.045	0.055
e	4.98	5.18	0.196	0.204
b	0.69	0.94	0.027	0.037
b1	1.20	1.34	0.047	0.053
C	0.35	0.46	0.014	0.018
D	14.22	16.22	0.560	0.639
D1	8.13	9.14	0.320	0.360
E	9.65	10.67	0.380	0.420
E1	6.22	-	0.245	-
L	2.67	3.40	0.105	0.134
L1	2.29	3.32	0.090	0.131
Q	0.92	1.68	0.036	0.066
F	0.02	0.30	0.001	0.012
D2	7.20	7.80	0.283	0.307
E2	7.60	8.20	0.299	0.323

Order Information

Device	Package	Marking	Carrier	Quantity
GSMBRB4035CT	TO-263	SR4035D1	Tape & Reel	800 Pcs / Reel
GSMBRB4040CT	TO-263	SR4040D1	Tape & Reel	800 Pcs / Reel
GSMBRB4045CT	TO-263	SR4045D1	Tape & Reel	800 Pcs / Reel
GSMBRB4060CT	TO-263	SR4060D1	Tape & Reel	800 Pcs / Reel
GSMBRB40100CT	TO-263	SR40100D1	Tape & Reel	800 Pcs / Reel
GSMBRB40150CT	TO-263	SR40150D1	Tape & Reel	800 Pcs / Reel
GSMBRB40200CT	TO-263	SR40200D1	Tape & Reel	800 Pcs / Reel

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