Silicon Bridge Rectifiers

DB104--DB107

Features

- Glass passivated junction
- High surge current capability
- Saves space on printed circuit boards
- High temperature soldering guaranteed: 260°C/10 seconds
- RoHS Compliant

Mechanical Data

- Case: Molded plastic body RoHS-compliant
- Molding compound meets UL 94 V-0 flammability rating
- Terminals: Lead Free Plating (Matte Tin Finish.)
- Polarity indicator: As marked on body

Maximum Ratings (@T_A = 25°C unless otherwise specified)

Characteristic		Symbol	DB104	DB105	DB106	DB107	Units
Peak repetitive reverse voltage		V_{RRM}	400	600	800	1000	V
RMS reverse voltage		V_{RMS}	280	420	560	700	V
DC blocking voltage		V_{DC}	400	600	800	1000	V
Maximum average forward output current		$I_{F(AV)}$	1.0				A
Peak forward surge current, 8.3ms single half-sine-wave	@T_J= 25°C	I_{FSM}	30				A
I^2t Rating for fusing	@T_J= 25°C	I^2t	3.7				A^2s

Thermal Characteristics

Parameter	Symbol	DB104	DB105	DB106	DB107	Units
Typical thermal resistance per leg (Note 1)	$R_{\Theta JA}$	66				°C/W
	$R_{\Theta JC}$	28				
	$R_{\Theta JL}$	27				
Operating junction temperature range	T_J	- 55 ---- + 150				°C
Storage temperature range	T_{STG}	- 55 ---- + 150				°C

Note:

1. Device mounted on PCB with 10 mm x 20 mm x 0.1mm copper pad areas

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Electrical Characteristics (@T_A = 25°C unless otherwise specified)

Parameter	Symbol	Test conditions		Typ.	Max.	Units
Maximum instantaneous forward voltage	V_F	I_F=1.0A Per Diode		--	1.1	V
Maximum Reverse current	I_R	Rated V_R, Per Diode	@T_A=25°C	--	10	μ A
			@T_A=100°C	--	1	mA

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Ratings and Characteristic Curves (T_A=25°C unless otherwise noted)

Fig.1-Forward Current Derating Curve

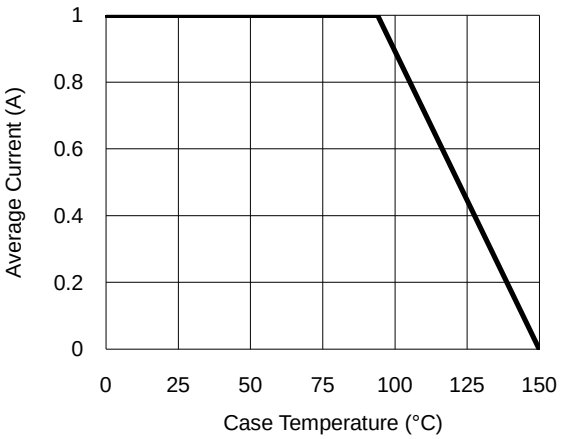


Fig.2- Surge Current Derating Curve

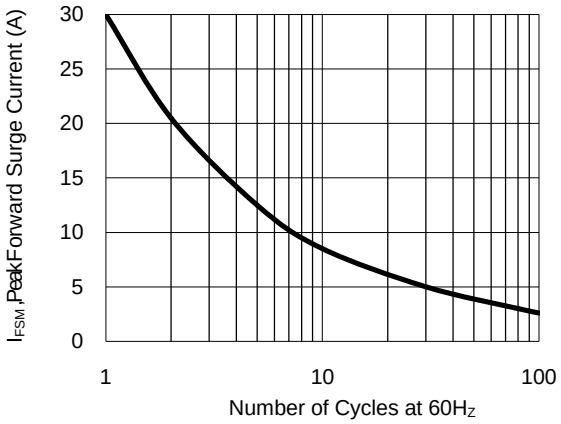


Fig.3- Typical Forward Voltage Characteristic

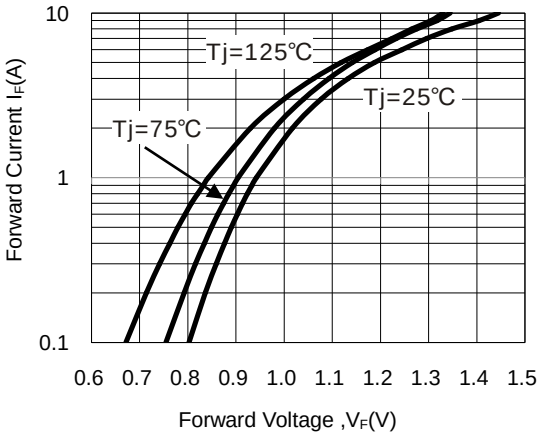
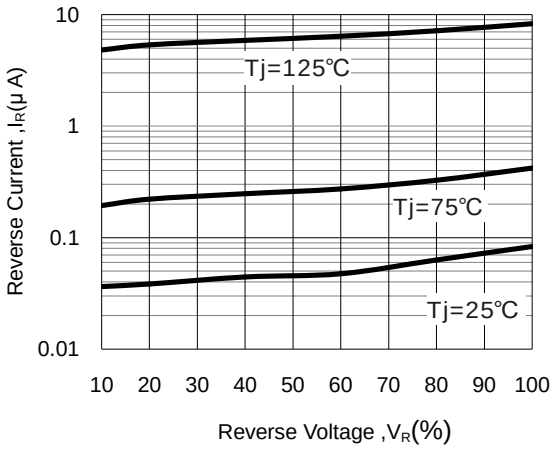


Fig.4- Typical Reverse Characteristic



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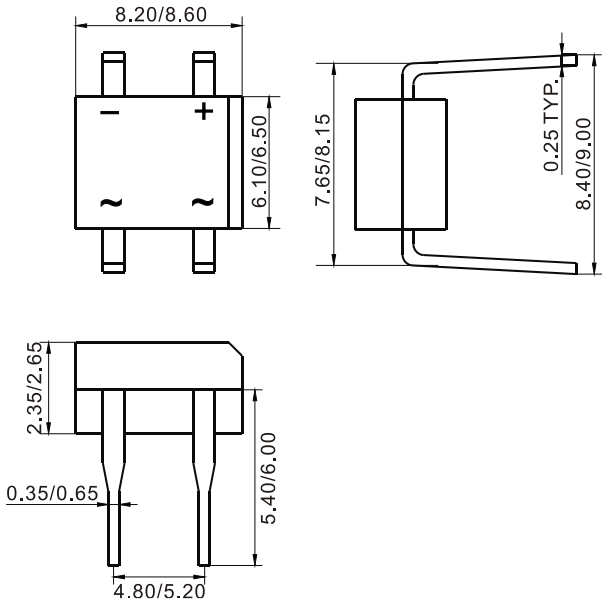
Package Outline Dimensions(unit:mm)



Ordering Information

Part No.	Marking	Package	Shipping
DB104	DB104	DFM	50/Unit&Pipe
DB105	DB105	DFM	50/Unit&Pipe
DB106	DB106	DFM	50/Unit&Pipe
DB107	DB107	DFM	50/Unit&Pipe