

Silicon Bridge Rectifier



Features:

- Glass, Passivated Chip Junctions
- High Surge Overload Rating: 35A Peak
- Saves Space on Printed Circuit Boards
- High Temperature Soldering Guaranteed: 260°C/10 seconds at 5lbs. (2.3kg) tension

Mechanical Data:

- Case: Molded Plastic Body over Passivated Junctions
- Terminals: Plated Leads Solderable per MIL-STD-750, Method 2026
- Polarity : Polarity Symbols Marked on Body Dimensions in Inches and (Millimeters)
- Mounting Position : Any
- Weight: 0.0078oz, 0.22g

Maximum Ratings And Electrical Characteristics:

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate by 20%.

Characteristics	Symbol	HD04-T	Units
Peak repetitive reverse voltage	V_{RRM}	400	V
RMS reverse voltage	V_{RMS}	280	V
DC blocking voltage	V_{DC}	400	V
Maximum average forward output current at $T_A=25^{\circ}C$	$I_{F(AV)}$	0.8	A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	I_{FSM}	35	A
Maximum instantaneous forward voltage at 0.8A	V_F	1	V
Maximum reverse current at $T_A=25^{\circ}C$ at rated DC blocking voltage at $T_A=100^{\circ}C$	I_R	5 0.5	μA mA
Typical junction capacitance per leg (Note 3)	C_J	13	pF
Typical thermal resistance per leg (Note 1) (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	85 20	$^{\circ}C/W$
Storage and Operating junction temperature range	T_J, T_{STG}	- 55 to +150	$^{\circ}C$

Notes:

- (1) On glass epoxy PCB mounted on 0.05" × 0.05" (1.3mm × 1.3mm) pads.
- (2) On aluminium substrate PCB with an area of 0.8" × 0.8" (20mm × 20mm) mounted on 0.05" × 0.05" (1.3mm × 1.3mm) solder pad.
- (3) Measured at 1MHz and applied reverse voltage of 4V.

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FIG.1 – DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

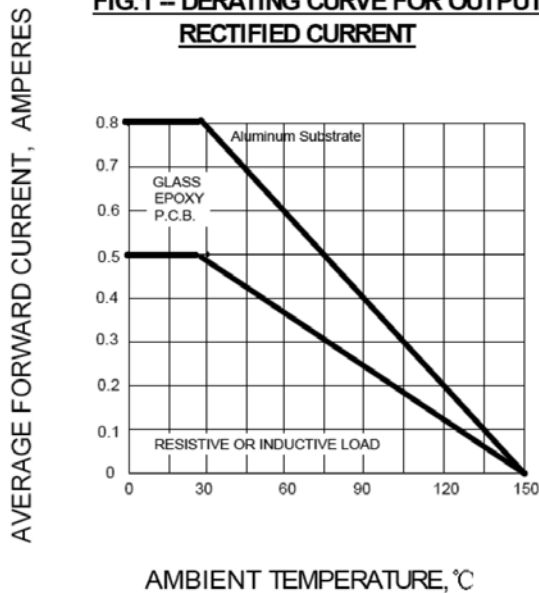


FIG.2 – MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

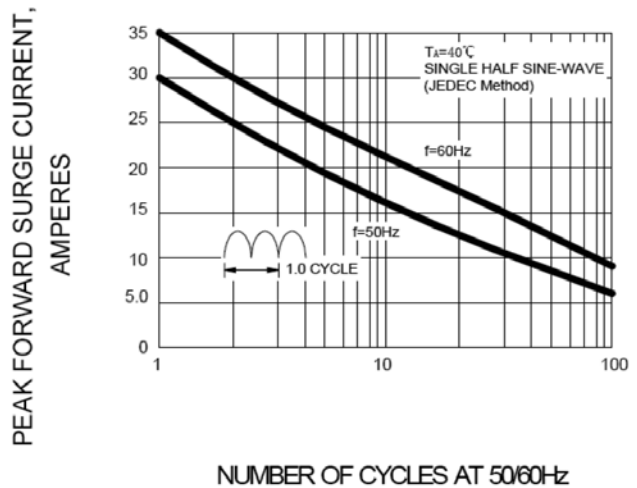


FIG.3 – TYPICAL FORWARD VOLTAGE CHARACTERISTICS PER LEG

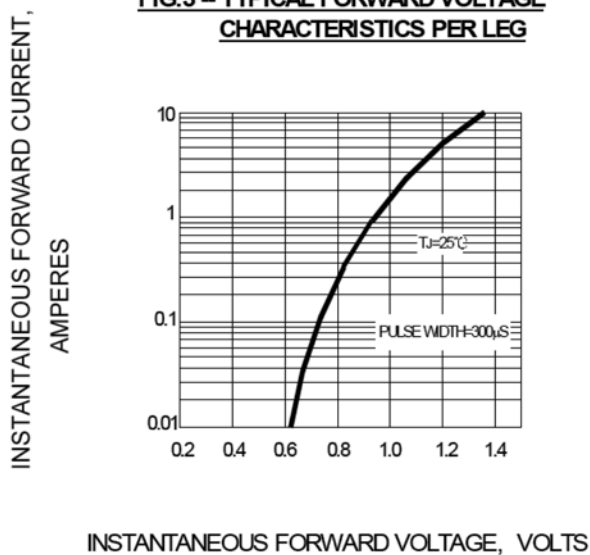
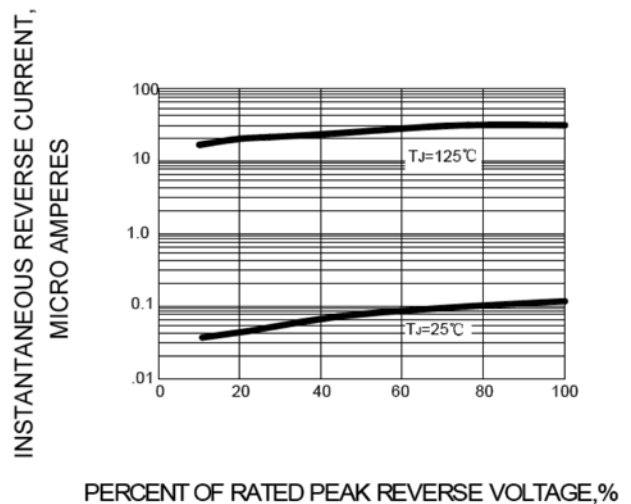


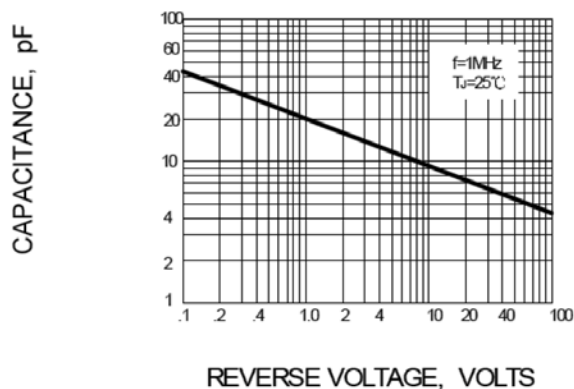
FIG.4 – TYPICAL REVERSE CHARACTERISTIC



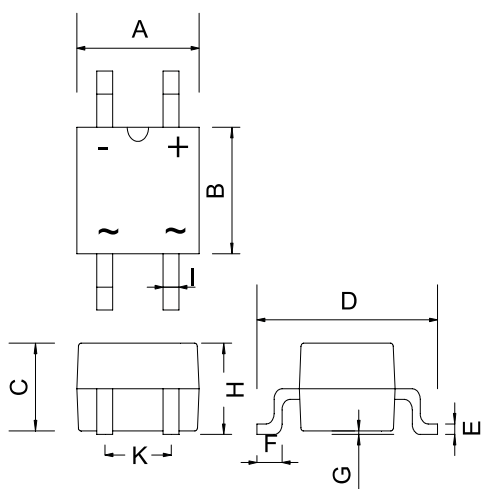
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FIG.5 – TYPICAL JUNCTION CAPACITANCE PER ELEMENT



Package Outline:



MBS		
Dim.	Min.	Max.
A	4.4	4.8
B	3.4	3.8
C	2.35	2.65
D	6.5	7
E	0.15	0.35
F	0.9	1.5
G	0.2 Max.	
H	2.5	2.8
I	0.5	0.8
K	2.3	2.7

Dimensions : Millimetres

Package Information:

Device	Package	Shipping
HD04-T	MBS	3,000 / Tape & Reel

Part Number Table

Description	Part Number
Silicon Bridge Rectifier	HD04-T

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