



Inline bridge

Silicon-Bridge Rectifiers

GBU 12A ... GBU 12M

Forward Current: 12 A

Reverse Voltage: 50 to 1000 V

Publish Data

Features

- max. solder temperature 260°C, max. 5s
- UL recognized, file no. E63532
- Standard packing: bulk
- $V_{ISO} > 2500$ V

Mechanical Data

- Plastic case 20,8 x 3,3 x 18 mm
- Weight approx. 4 g
- Terminals: plated terminals solderable per IEC 68-2-20
- Mounting position: any
- Admissible torque for mouting (M3): 1(+/-10%) Nm

Type	Alternating input voltage V_{RMS} V	Repetitive peak reverse voltage V_{RRM} V
GBU 12A	35	50
GBU 12B	70	100
GBU 12D	140	200
GBU 12G	280	400
GBU 12J	420	600
GBU 12K	560	800
GBU 12M	700	1000

Absolute Maximum Ratings

$T_c = 25$ °C unless otherwise specified

Symbol	Conditions	Values	Units
I_{FRM}	Repetitive peak forward current; $f > 15$ Hz ¹⁾	60	A
I^{2t}	Rating for fusing, $t < 10$ ms	375	A ² s
I_{FSM}	Peak forward surge current, 50 Hz half sine-wave $T_A = 25$ °C	300	A
I_{FAV}	Max. averaged fwd. current, R-load, $T_A = 50$ °C ¹⁾	4	A
I_{FAV}	Max. averaged fwd. current, C-load, $T_A = 50$ °C ¹⁾	3,2	A
I_{FAV}	Max. current with cooling fin, R-load, $T_c = 100$ °C ²⁾	12	A
I_{FAV}	Max. current with cooling fin, C-load, $T_c = 100$ °C ²⁾	9,6	A
R_{thA}	Thermal resistance junction to ambient ¹⁾	/	K/W
R_{thC}	Thermal resistance junction to case ¹⁾	2,7	K/W
T_j	Operating junction temperature	- 50 ... + 150	°C
T_s	Storage temperature	- 50 ... + 150	°C

Characteristics

$T_c = 25$ °C unless otherwise specified

Symbol	Conditions	Values	Units
V_F	Maximum forward. voltage, $T_j = 25$ °C; $I_F = 12$ A	1	V
I_R	Maximum Leakage current, $T_j = 25$ °C; $V_R = V_{RRM}$	10	µA
C_j	Typical junction capacitance per leg at V, MHz		pF



