



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Silicon Bridge Rectifier

 $V_{RRM} = 50\text{ V} - 1000\text{ V}$
 $I_F = 6\text{ A}$

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Types up to 1000 V V_{RRM}
- Ideal for printed circuit board
- High surge overload rating
- High temperature soldering guaranteed: 260°C/ 10 seconds, 0.375(9.5mm) lead length
- Glass passivated chip junction
- High case dielectric strength 1500 V_{RMS}

GBU Package



Mechanical Data

Case: Molded plastic body over passivated junctions

Mounting position: Any

Terminals: Plated leads, solderable per MIL-STD-750

Method 2026 guaranteed

Maximum ratings, at $T_j = 25\text{ °C}$, unless otherwise specified

Parameter	Symbol	Conditions	GBU6J	GBU6K	GBU6M	Unit
Repetitive peak reverse voltage	V_{RRM}		600	800	1000	V
RMS reverse voltage	V_{RMS}		420	560	700	V
DC blocking voltage	V_{DC}		600	800	1000	V
Continuous forward current	I_F	$T_C \leq 100\text{ °C}$	6	6	6	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ °C}$, $t_p = 8.3\text{ ms}$	175	175	175	A
Operating temperature	T_j		-55 to 150	-55 to 150	-55 to 150	°C
Storage temperature	T_{stg}		-55 to 150	-55 to 150	-55 to 150	°C

Electrical characteristics, at $T_j = 25\text{ °C}$, unless otherwise specified

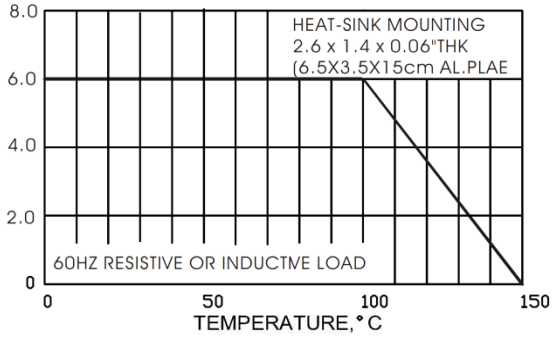
Parameter	Symbol	Conditions	GBU6J	GBU6K	GBU6M	Unit
Diode forward voltage	V_F	$I_F = 6\text{ A}$, $T_j = 25\text{ °C}$	1.1	1.1	1.1	V
Reverse current	I_R	$V_R = 50\text{ V}$, $T_j = 25\text{ °C}$ $V_R = 50\text{ V}$, $T_j = 125\text{ °C}$	5 500	5 500	5 500	μA

Thermal characteristics

Parameter	Symbol	Conditions	GBU6J	GBU6K	GBU6M	Unit
Thermal resistance, junction - case	R_{thJA}		7.4	7.4	7.4	°C/W
	R_{thJL}		2.2	2.2	2.2	

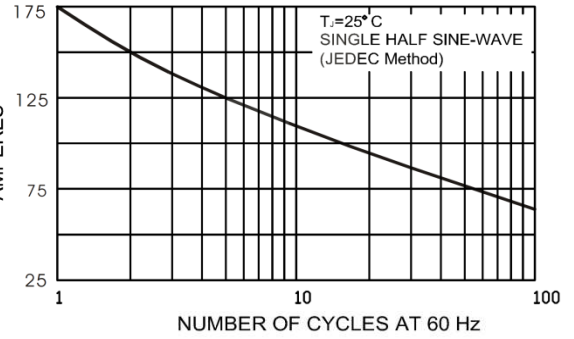
AVERAGE FORWARD OUTPUT CURRENT,
AMPERES

FIG.1-DERATIVE CURVE FOR OUTPUT RECTIFIER CURRENT



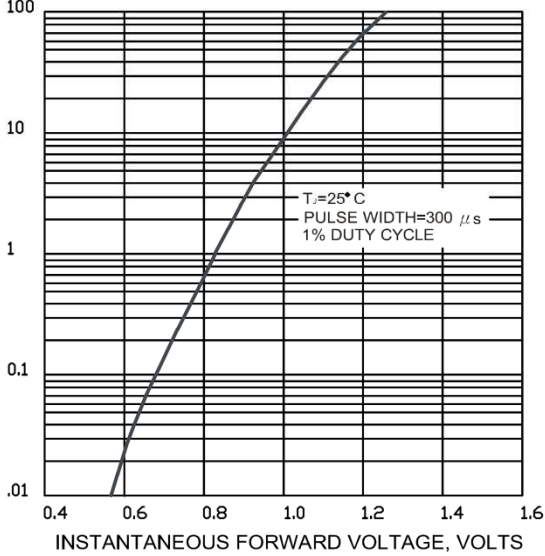
PEAK FORWARD SURGE CURRENT,
AMPERES

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



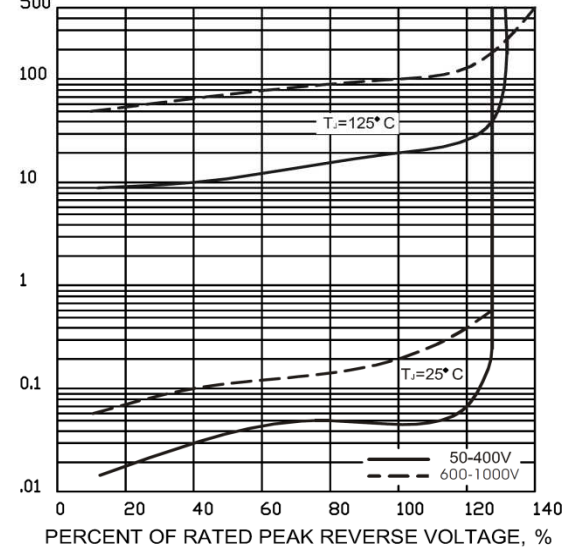
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG.3-TYPICAL FORWARD CHARACTERISTICS PER LEG



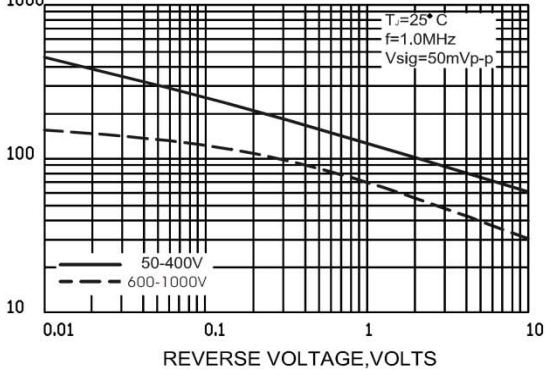
INSTANTANEOUS REVERSE CURRENT, MICROAMPERES

FIG.4-TYPICAL REVERSE CHARACTERISTICS PER LEG



JUNCTION CAPACITANCE, pF

FIG.5-TYPICAL JUNCTION CAPACITANCE PER LEG



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

