

Silicon Bridge Rectifiers

COMCHIP
SMD DIODE SPECIALIST

KBU600-G thru 610-G (RoHS Device)

Reverse Voltage: 50 ~ 1000 Volts

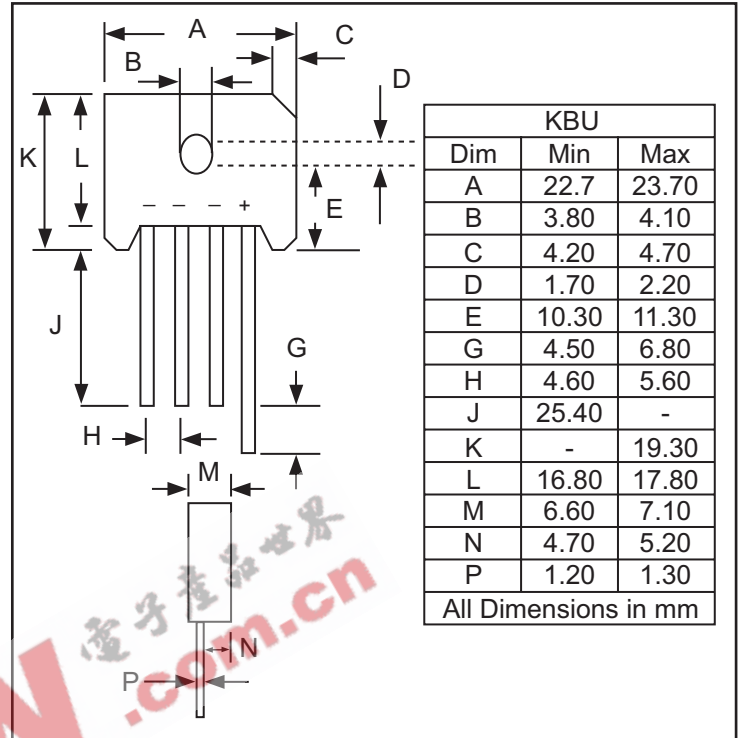
Forward Current: 6.0 Amp

Features:

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards

Mechanical Data:

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL STD-202, Method 208
- Weight: 1.7 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



CHARACTERISTICS	Symbol	KBU 600-G	KBU 601-G	KBU 602-G	KBU 604-G	KBU 606-G	KBU 608-G	KBU 610-G	UNIT
Peak Repetitive Reverse Voltage	V_{RRM}								
Working Peak Reverse Voltage	V_{RWM}	50	100	200	400	600	800	1000	V
DC Blocking Voltage	V_R								
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current @ $T_A = 100^\circ\text{C}$	I_O	6.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half Sine-Wave Superimposed on rated load (JEDEC Method)	I_{FSM}	250							A
Forward Voltage (per element) @ $I_F=3.0\text{A}$	V_{FM}	1.0							V
Peak Reverse Current @ $T_C=25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_C=100^\circ\text{C}$	I_R	10 1.0							μA mA
Rating for Fusing ($t<8.3\text{ms}$) (Note1)	I^2t	166							A^2S
Typical Thermal Resistance (Note2)	$R_{\theta JC}$	4.2							K/W
Operating and Storage Temperature Range	$T_J T_{STG}$	-65 to +150							$^\circ\text{C}$

Note: 1. Non-repetitive for $t>1\text{ms}$ and $<8.3\text{ms}$.
2. Thermal resistance junction to ambient mounted on PC board with $13.0 \times 13.0 \times 0.03\text{mm}$ thick land areas.

"-G" suffix designated RoHS compliant version

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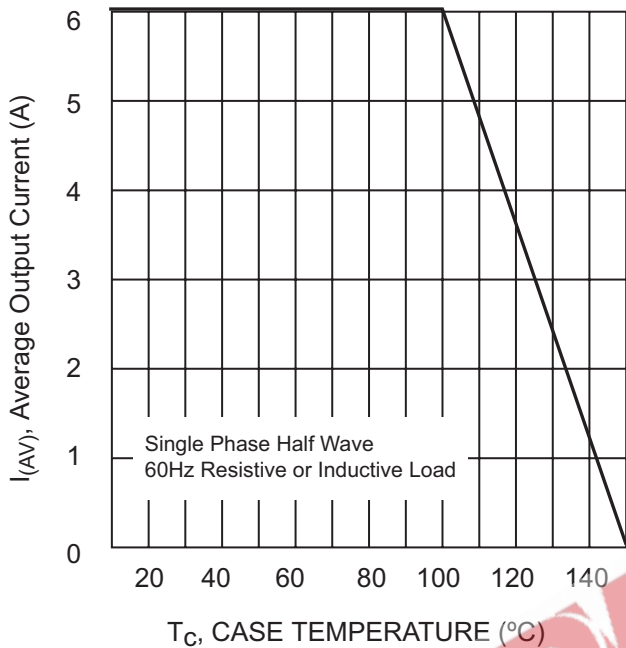


Fig. 1 Forward Current Derating Curve

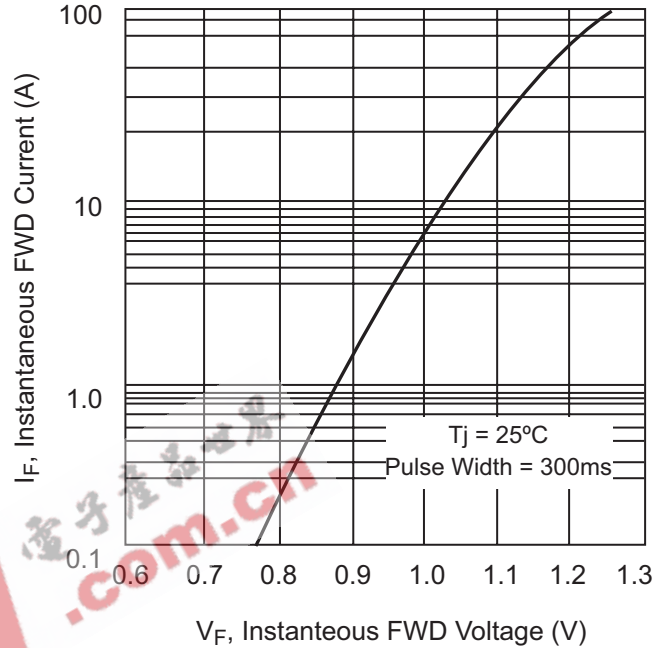


Fig. 2 Typical Forward Characteristics, per element

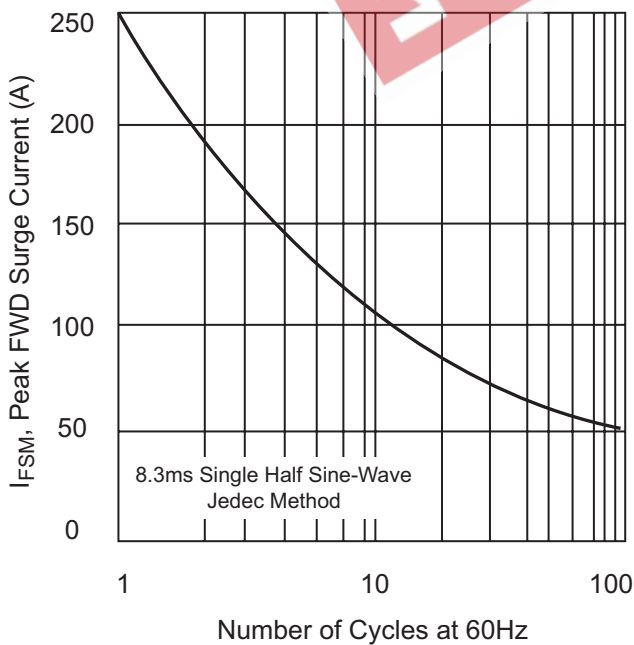


Fig. 3 Max Non-Repetitive FWD Surge Current

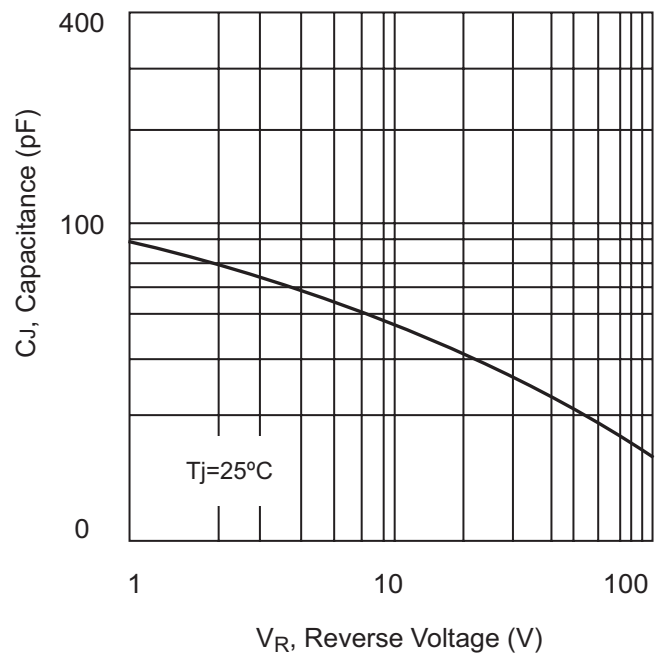


Fig. 4. Typical Junction Capacitance Per Element