

UG6KB05 THRU UG6KB100

SINGLE PHASE 6.0AMP GLASS PASSIVATED BRIDGE RECTIFIER

Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Designed for surface mount application
- Plastic material-UL flammability 94V-0

Mechanical Data

- Case: D3K,molded plastic
- Terminal: Plated leads solderable per MIL-STD 202,Method 208
- Polarity: As Marked on case
- Mounting Position:Any
- Marking: Type Number
- Lead Free: For RoHS/Lead Free Version

' L P L H Q V L R Q V L Q A E Q 0 K P A W D H Q G V

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.
Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	UG6K B05	UG6K B10	UG6K B20	UG6K B40	UG6K B60	UG6K B80	UG6K B100	UNIT	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM}								V	
	V_{RWM}	50	100	200	400	600	800	1000		
	V_{DC}									
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V	
Average Rectified Output Current	IF(AV)	Without heat sink @ $T_c=90^\circ\text{C}$						3.0		A
		With heat sink @ $T_c=90^\circ\text{C}$						6.0		
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150						A		
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	93.375						A^2s		
Forward Voltage per element @ $I_F=6.0\text{A}$	V_{FM}	1.1						V		
Maximum DC reverse current at $T_J=25^\circ\text{C}$ rated DC blocking voltage per leg $T_J=125^\circ\text{C}$	I_R	5.0						uA		
Dielectric Strength	Vids	2500						V		
The proposed installation torque Max torque	Tor	5.0						Kgf.cm		
Typical Junction Capacitance (Note 1)	C_J	45						pF		
Typical thermal resistance	$R_{\theta JA}$	55						$^\circ\text{C}/\text{W}$		
	$R_{\theta JL}$	15								
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150						$^\circ\text{C}$		

Note: 1. Measured at 1.0 MHZ and applied reverse voltage of 4.0VD.C.

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Fig. 1 Output Current Derating Curve

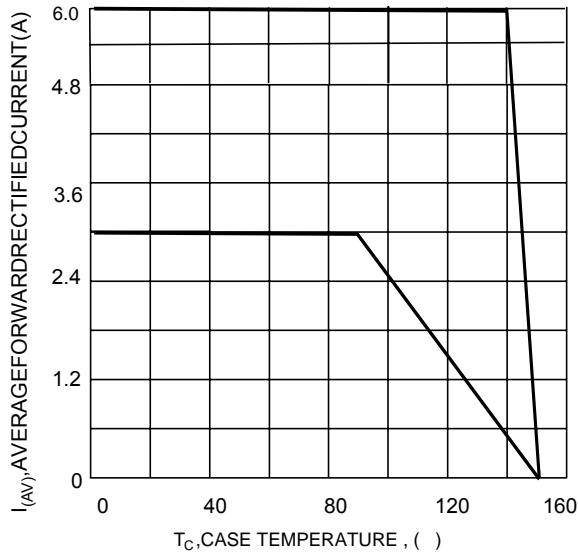


Fig. 2 Typical Forward Characteristics

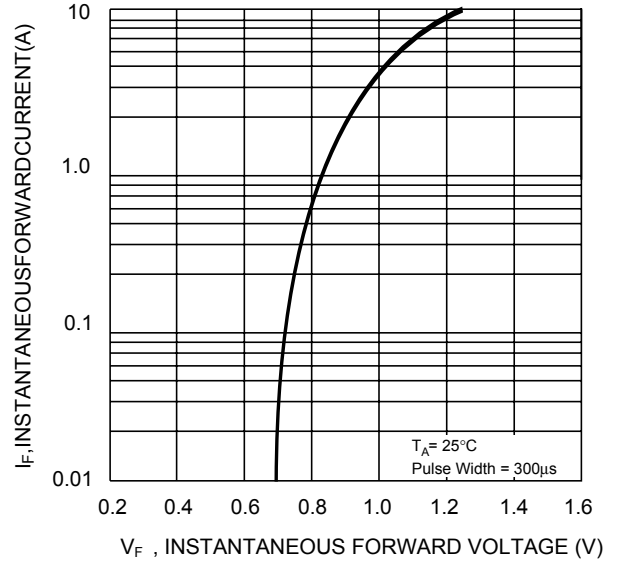


Fig. 3 Maximum Peak Forward Surge Current

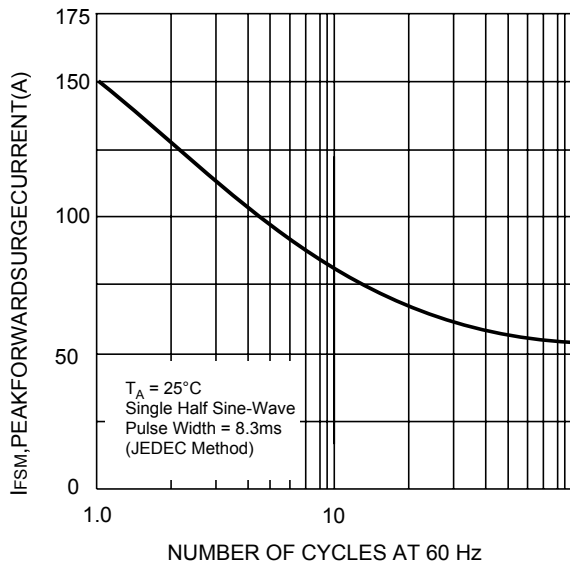


Fig. 4 Typical Junction Capacitance Per Diode

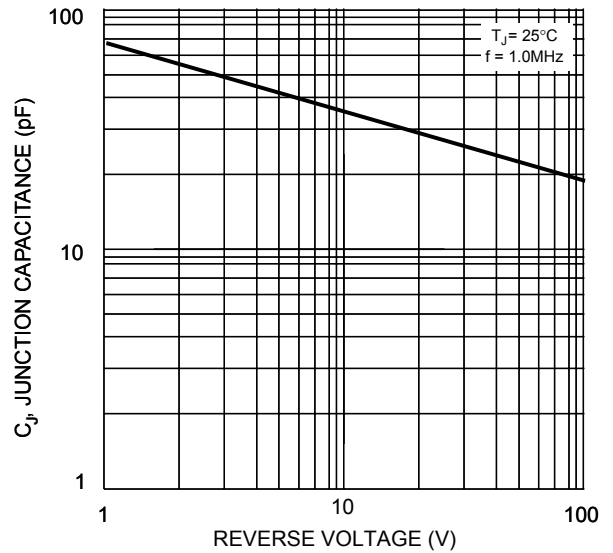
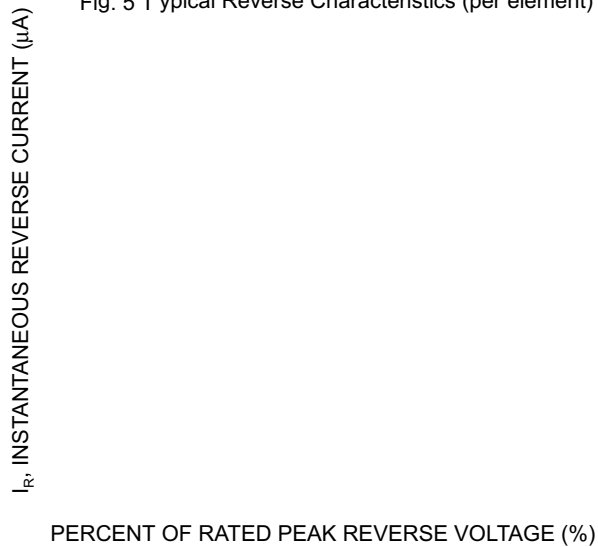


Fig. 5 Typical Reverse Characteristics (per element)



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Important Notice and Disclaimer

† 5 HS URGX EDLOR GLJLIDUP DQWVFKGRFXRHSURKGEZLWVFKUPLVVLRQ
IUR; ,1182

† ,1182 UHVHUYHV WKH ULJKW WR PDNH FKDQJHV WR WKLV GRFX
VSHFLILFDWLRQV DW DQ\ WLPH ZLWKRXW QRWLFH & XVWRPH
ODWHVW SURGXFW LQIRUPDWLRQ DQG VSHFLILFDWLRQV EHIR

† ,1182 GLVFRDQ\ DOLDLIOLUWJRLX VHKSSOLEDRULRI

DQSURVXFFQJXGEOHVLQFLGHDOVSDOHTXIBQDFFXUUHG

† ; ,1182 GRVQFDVXF DQ\ DQSSOGZHDQWV LQFOJXZGUDV IRWVV IRU
SDUWUSFXUSDRHQIULHQWQIBHUBQDLIOLW

† \$SSOLFVWVGRGK HUIGRFXRPHIDHPSIVRVGDXWDQG

RSHUDWLRQV DUKVWRQWUROP SUHKJHVGXDKVHLSQDUWLFXOD
DSOLFQWLR

; ,1182 PDNV QHSVHQVDZDZDQWVWXFD SOLFDZVORVXLWIDRKH
VSHFLXVHGWKRMWVHVRVDRGLILFDWLRQ

† 7 HSURGXVGRKHUIDNQVGLHQHDQGWKBUIRTHXLSPHQWVXKLLQ

OHYBHHOLDREULHOLWVQDOLDQGRU DSSLFDWRQFHJLQVLYLQJ

RDLVXVWDVSDQVHGLOEQVWUXVDCSRVQHTVSPRIQDU RDS

PDFKLQHWHW&XDWRRMURVHQVHKQ SURGXFWV LVKFDSSOLFDFWLRQV

GRVVRVQULNDQSHWVRLQHQSL; ,1182 RU DQDFVHVXQWRVQFK

LPSURXSRWDOH

† 6 LQF, 1182 XVVQXP EHDWVDFNLQJHSDVSHURVHQRXP EHVDFNLQJ
ZKHQRPSODLQLQJ