UG6KB080L

LOW VF BRIDGE RECTIFIERS

VOLTAGE	800 Volts	CURRENT	6.0 Ampers	D3K

FEATURES

- Glass passivated die construction
- low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0

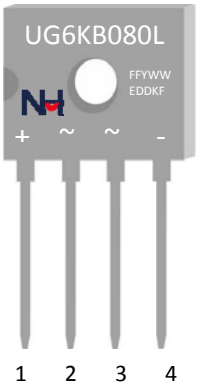
MECHANICAL DATA

- Case: D3K , olded lastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Case
- Mounting Position: Any
- Lead Free: For RoHS / Lead Free Version

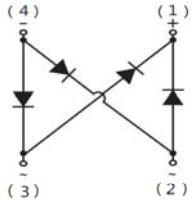
TYPICAL APPLICATIONS

- For use in low voltage ,high frequency inverters ,DC/DC converters,free wheeling ,and polarity protection applications

Marking & Schematic diagram



PIN	DISCRIPTION
1	Output Anode(+)
2	Input Pin(~)
3	Input Pin(~)
4	Output Cathode(-)



Remark:

①. NH=niuhang trademark

②. FF=Product line code,According to actual changes

YWW=Data code,According to actual changes

EDDKF=Inernal code,According to actual changes

③. UG6KB080L=Modle

④. "+ ~ ~ -"=Polarity mark

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

Maximum Ratings (Ratings at 25℃ ambient temperature unless otherwise specified)

Parameter		*Symbol*	*UG6KB080L*	*Unit*
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	800	V
Maximum RMS Voltag		V_{RMS}	560	V
Maximum DC Blocking Voltage		V_{DC}	800	V
Maximum Average Forward Rectified Current @ TC=100°C (see fig.1)	with heatsink without heatsink	$I_{F(AV)}$	6 1.6	A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed On Rate Load (JEDEC Method)		I_{FSM}	180	A
Current Squared Time Per Diode(t<8.3ms)		I^2t	134.46	A^2sec

Electrical Characteristcs (Ratings at 25℃ ambient temperature unless otherwise specified)

Parameter		*Symbol*	*UG6KB080L*	*Unit*
Maximum Forward Voltage Per Diode (Note 1)	@6.0A @3.0A	V_{FM}	1.05 0.95	V
Maximum DC Reverse Current at Rated DC Blocking Voltage (Note 2)	T_C=25℃ T_C=125℃	I_{RRM}	5 300	uA
Typical Junction Capacitance Per Diode (Note 3)		C_J	60	pF

Thermal Characteristcs (Ratings at 25℃ ambient temperature unless otherwise specified)

Parameter	*Symbol*	*UG6KB080L*	*Unit*
Operating Junction Temperature Range	T_J	-55 to +150	℃
Storage Temperature Range	T_{STD}	-55 to +150	
Typical thermal resistance (Note 4)	$R_{\theta JA}$ $R_{\theta JL}$	31.0 7.6	℃/W

Notes:
1. Pulse test: 300 μs pulse width,1% duty cycle
2. Pulse test: pulse width≤40ms
3. Measured at 1 MHZ and applied reverse voltage of 4.0 VDC.
4. Device mounted on Device mounted on 75mm x 45mm x 2.5mm Aluminum Plate Heatsink.

UG6KB080L

LOW VF BRIDGE RECTIFIERS

Pb-Free RoHS COMPLIANT

RATING AND CHARACTERISTIC CURVES

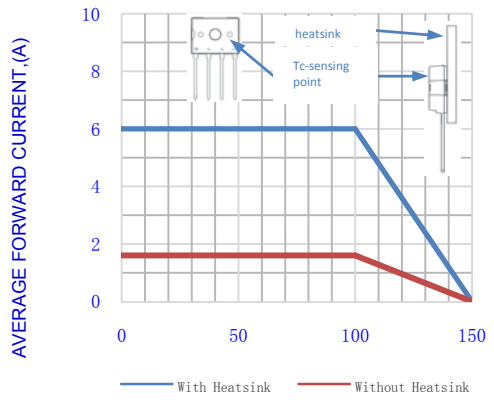


Fig.1-FORWARD CURRENT DERATING CURVE

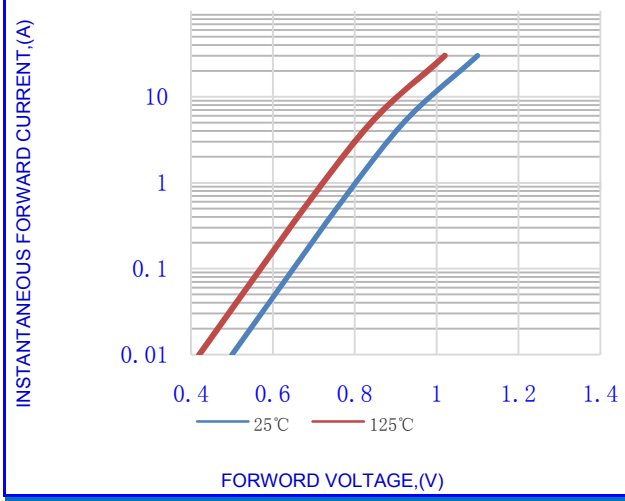


Fig.2- TYPICAL INSTANTANEOUS FORWARD

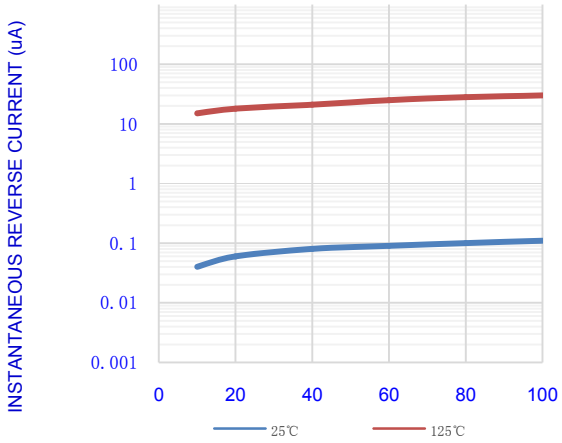


Fig.3- TYPICAL REVERSE CHARACTERISTICS

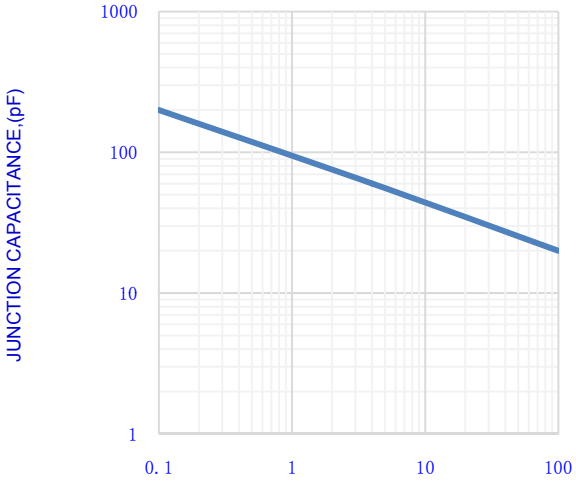


Fig.4- TYPICAL JUNCTION CAPACITANCE

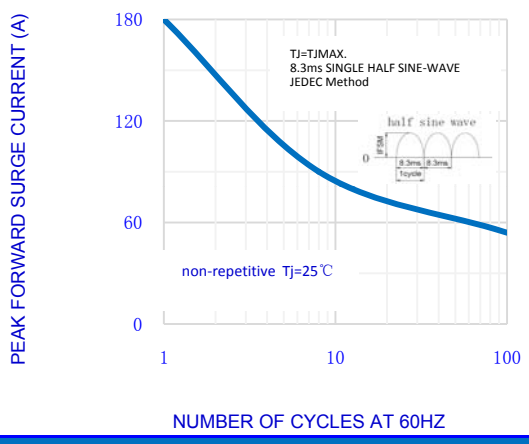
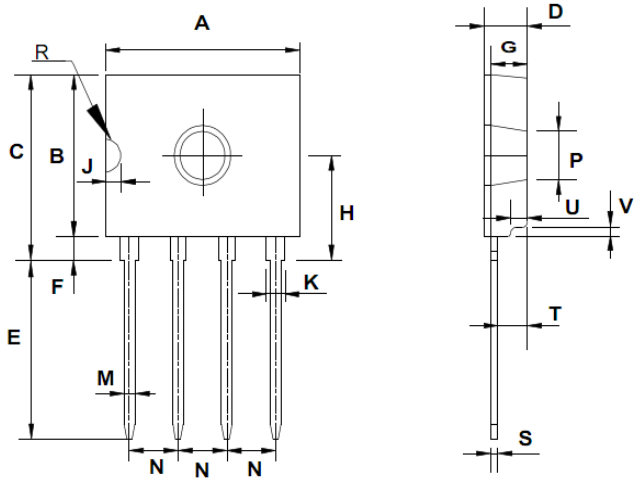


Fig.5-MAX. NON-REPETITIVE SURGE CURRENT

UG6KB080L

LOW VF BRIDGE RECTIFIERS

OUTLINE DRAWINGS



OUTLINE DIMENSIONS						
DIM	MILLIME TERS			INCHES		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	13.50	-	14.10	0.531	-	0.555
B	10.50	-	11.10	0.413	-	0.437
C	11.70	-	12.30	0.461	-	0.484
D	2.90	-	3.30	0.114	-	0.130
E	11.70	-	12.30	0.461	-	0.484
F	1.20	-	1.40	0.047	-	0.055
G	2.40	-	2.80	0.094	-	0.110
H	6.40		7.00	0.252	-	0.276
J	-	1.450	-	-	0.057	-
K	1.10	-	1.50	0.043	-	0.059
M	0.66	-	0.86	0.026	-	0.034
N	3.51	-	4.11	0.138	-	0.162
P	3.10		3.40	0.122	-	0.134
R	-	1.450	-	-	0.057	-
S	0.40	-	0.60	0.016	-	0.024
T	1.80	-	2.40	0.071	-	0.094
U	-	0.600	-	-	0.024	-
V	1.00	-	1.40	0.039	-	0.055

D3K

Packing Information

Package	Pack	Quantity (pcs/box)	Box Size L×W×H (mm)	Carton Size L×W×H (mm)	Quantity (box/carton)
D3K	B/P	500	205×155×30	490x240×180	18

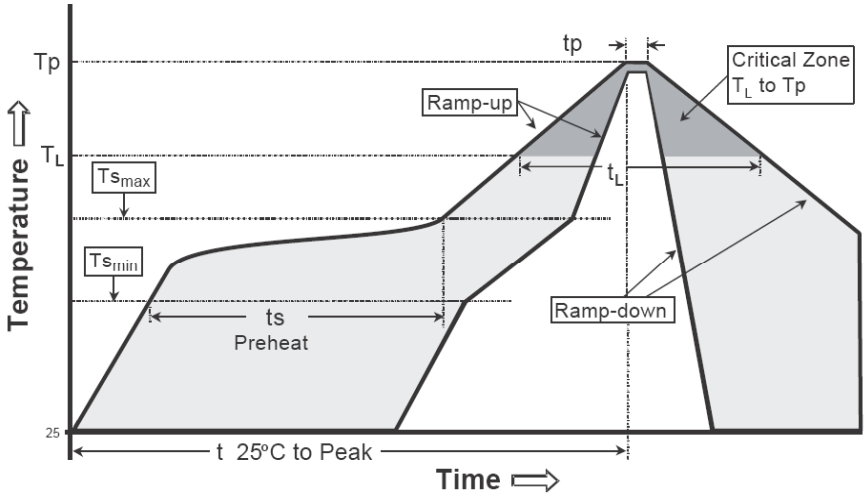
UG6KB080L

LOW VF BRIDGE RECTIFIERS

Recommended wave soldering condition

Product	Peak Temperature	Soldering Time
Pb-free devices	260 +0/-5 °C	5 +1/-1 seconds

Recommended temperature profile for IR reflow



Profile feature	Sn-Pb eutectic Assembly	Pb-free Assembly
Average ramp-up rate (Tsmax to Tp)	3°C/second max.	3°C/second max.
Preheat −Temperature Min(TS min) −Temperature Max(TS max) −Time(ts min to ts max)	 100°C 150°C 60-120 seconds	 150°C 200°C 60-180 seconds
Time maintained above: −Temperature (TL) − Time (tL)	 183°C 60-150 seconds	 217°C 60-150 seconds
Peak Temperature(TP)	240 +0/-5 °C	260 +0/-5 °C
Time within 5°C of actual peak temperature(tp)	10-30 seconds	20-40 seconds
Ramp down rate	6°C/second max.	6°C/second max.
Time 25 °C to peak temperature	6 minutes max.	8 minutes max.

Note : All temperatures refer to topside of the package, measured on the package body surface.

UG6KB080L

LOW VF BRIDGE RECTIFIERS

Disclaimer

- Reproducing and modifying informatiom of the document is prohibited without permission from niuhang Electronics co., LTD
- Niuhang Electronics co., LTD. reserves the rights to make changes of the content herein the document anytime without notification.
- Niuhang Electronics co., LTD. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Niuhang Electronics co., LTD. does not assume any and all implied warranties, including warranties of fitness for particular purpose,non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Niuhang Electronics co., LTD.makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining,such as medical instruments.transportation equipment,aerospae machinery et cetera.Customers usin or selling these products for use in such applications do so at their own rish and agree to fully indemnify Niuhang Electronics co., LTD.for any damages resulting resulting from such improper use or sale.
- When the appearance of the product and chip size does not change, in order to product the customer.
  quality, change the internal structure and the production process Niuhang can not notify

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Bridge Rectifiers ***category:***

Click to view products by NH ***manufacturer:***

Other Similar products are found below :

MB252 MB356G MB358G GBJ1504-BP GBU10B-BP GBU15K-BP GBU4A-BP GBU4D-BP DB101-BP DF01 DF10SA-E345 KBPC50-10S RS405GL-BP GBJ1502-BP GBU6M TB102M MB1510 MB86 TL401G MDA920A2 TU602 TU810 MP5010W-BP MP501W-BP MP502-BP KBPC25-02 VBO160-12NO7 VS-110MT120KPBF VS-60MT80KPBF DB105-BP DF1510S VS-40MT160PAPBF GBU4G-BP GSIB15A80-E3/45 DB104-BP D3SB60 TB354 GBJ2504-BP 26MB100A B1S-G VS-40MT160KPBF VUO162-16NO7 ABS10-G GBU6B-BP GBJ1508-BP BR5010-G ABS6-G B125C800G-E4/51 MSB15MH-13 LBS10-13