

**UR4KB005-UR4KB100**

**Single Phase 4.0 AMPS.  
Glass Passivated Bridge Rectifiers  
D3K**

**Features**

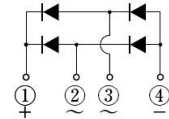
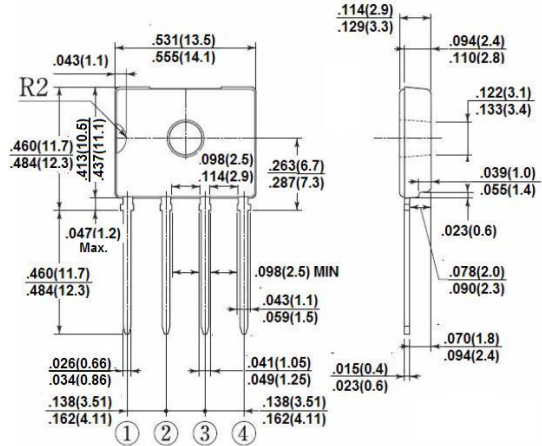
- ✧ UL Recognized
- ✧ Glass passivated junction
- ✧ Ideal for printed circuit board
- ✧ High case dielectric strength
- ✧ Plastic material has Underwriters laboratory flammability Classification 94V-0
- ✧ Typical IR less than 0.1uA
- ✧ High surge current capability
- ✧ High temperature soldering guaranteed:  
260°C / 10 seconds at 5 lbs., ( 2.3 kg ) tension
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode.

**Mechanical Data**

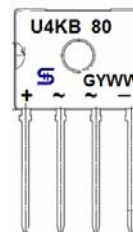
- ✧ Case : Molded plastic body
- ✧ Terminal : Pure tin plated , Lead free. Leads solderable per MIL-STD-202 Method 208
- ✧ Weight : 1.41 grams (0.053 ounce)
- ✧ Mounting Torque : 0.8 N.M max.

**Maximum Ratings and Electrical Characteristics**

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



**Dimension in inches and (millimeter)  
Marking Diagram**



U4KB80 = Specific Device Code  
G = Green Compound  
Y = Year  
WW = Work Week

Type Number	Symbol	UR4KB 005	UR4K B10	UR4K B20	UR4K B40	UR4K B60	UR4K B80	UR4K B100	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Current Without heat sink $T_a=30^{\circ}C$ 60 Hz sine wave resistance load With heat sink $T_c=138^{\circ}C$	$I_{(AV)}$	1.2				4.0			A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	$I_{FSM}$					135			A
Rating of fusing ( $t < 8.3ms$ )	$I^2t$					75			A <sup>2</sup> S
Maximum Instantaneous Forward Voltage @ 2.0A	$V_F$					1			V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$					10			uA
Dielectric Strength (Terminal to Case, AC 1minute)	$V_{dis}$					2.0			KV
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$					14.0			°C/W
	$R_{\theta JC}$					8.2			
	$R_{\theta JL}$					9.3			
Operating Temperature Range	$T_J$					-55 to +150			°C
Storage Temperature Range	$T_{STG}$					-55 to +150			°C

Note 1 : Unit case mounted on 2" x 3" x 0.25" Al plate heat sink.

RATINGS AND CHARACTERISTIC CURVES (UR4KB005-UR4KB100)

FIG 1 Maximum Derating Curve for Output Current

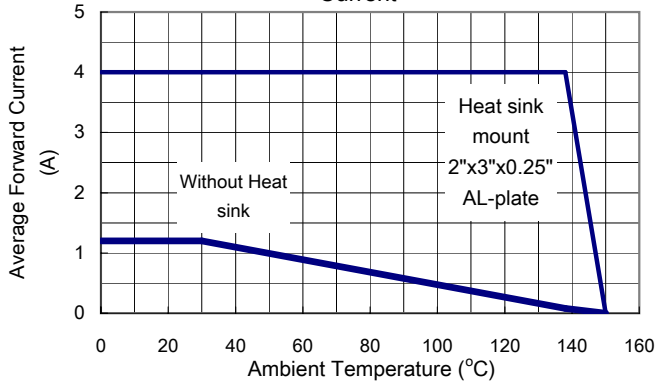


FIG 2 Maximum Forward Surge Current per Leg

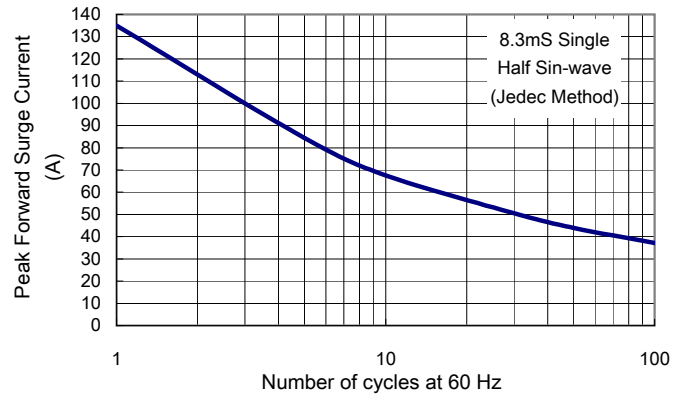


FIG 3 Typical Reverse Characteristics per Leg

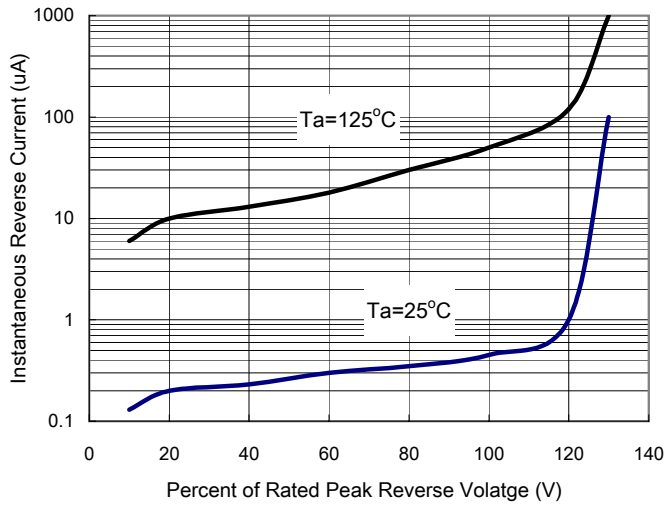


FIG 4 Typical Forward Characteristics per Leg.

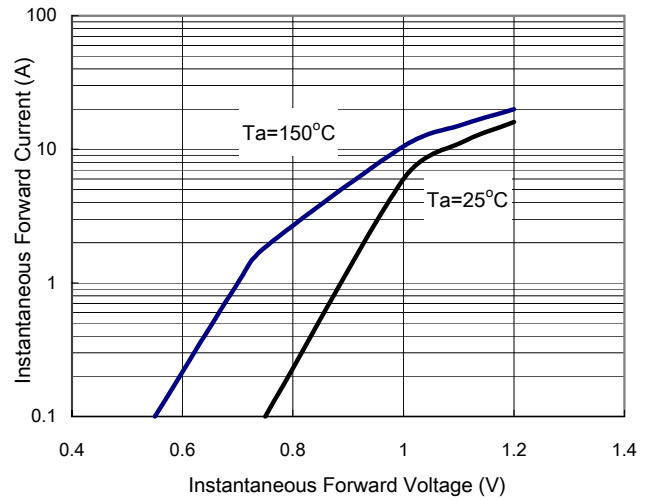


FIG 5 Forward Power Dissipation

