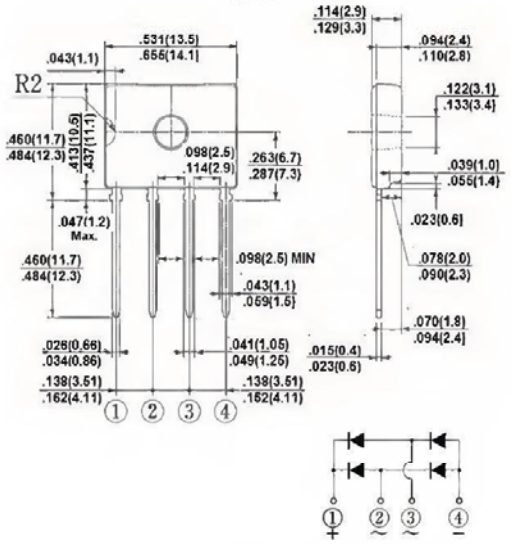
TAIWAN SEMICONDUCTOR

RoHS COMPLIANCE

UR4KB60-UR4KB100

Single Phase 4.0 AMPS. Glass Passivated Bridge Rectifiers

D3K



Features

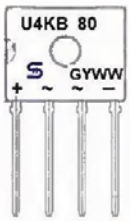
- ✧ UL Recoganized
- ✧ Glass passivated junction
- ✧ Ideal for printed circuit board
- ✧ High case dielectric strength
- ✧ Plastic material has Underwriters laboratory flammability Classification 94V-0
- ✧ Typical IR less than 0.1uA
- ✧ High surge current capability
- ✧ High temperature soldering guaranteed: 260℃ / 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.

Dimension in inches and (millimeter)

Marking Diagram



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

Maximum Ratings and Electrical Characteristics

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

Type Number	Symbol	UR4KB60	UR4KB80	UR4KB100	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	600	800	1000	V
Maximum Average Forward Current Without heat sink Ta=30°C 60 Hz sine wave resistance load With heat sink Tc=138°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^2S
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)	Vdis	2.0			KV
Typical Thermal Resistance (Note 1)	$R\theta_{JA}$ $R\theta_{JC}$ $R\theta_{JL}$	14.0 8.2 9.3			°C/W
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 (UR4KB60-UR4KB100)

FIG 1 Maximum Derating Curve for Output Current

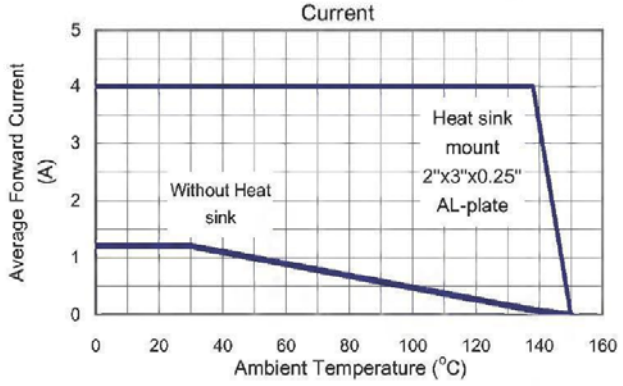


FIG 2 Maximum Forward Surge Current per Leg

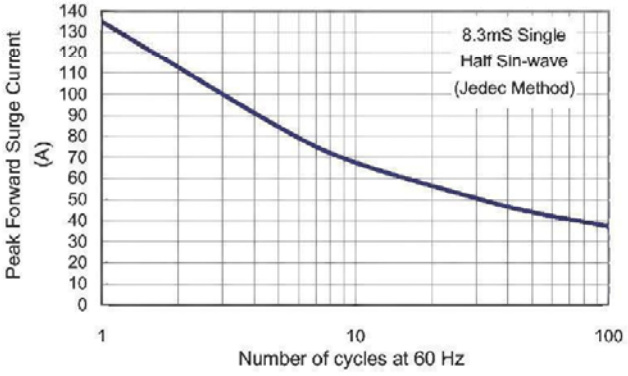


FIG 3 Typical Reverse Characteristics per Leg

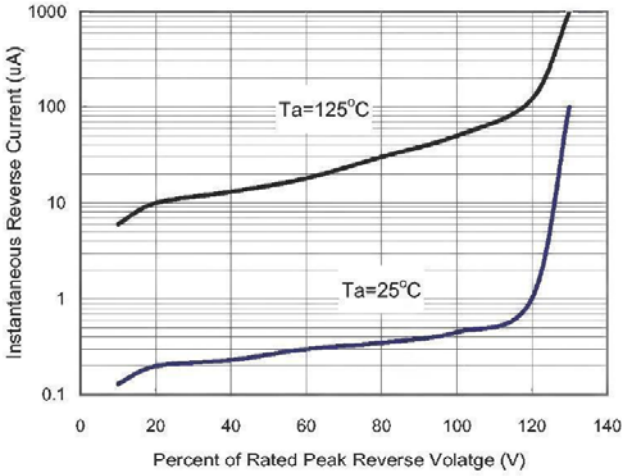


FIG 4 Typical Forward Characteristics per Leg.

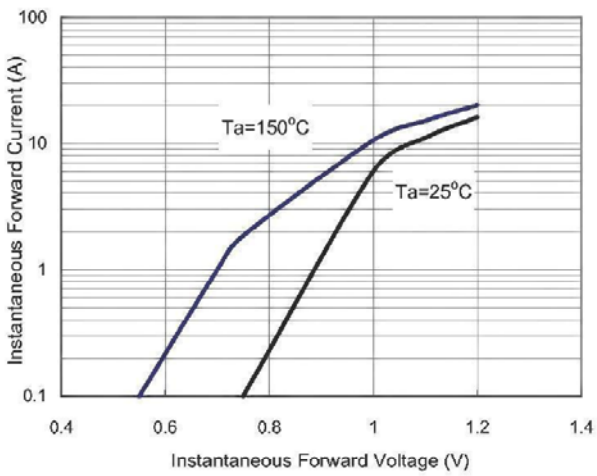


FIG 5 Forward Power Dissipation