UG8KB05 THRU UG8KB100

BRIDGE RECTIFIERS

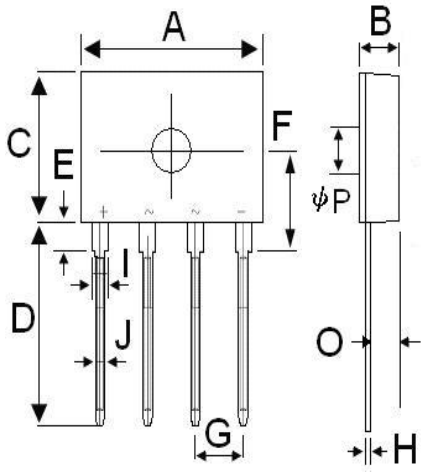
Features

- Glass passivated die construction
- High surge 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

D3K



D3K		
Dim.	Min.	Max.
A	14.2	14.7
B	3.30	3.60
C	10.2	10.6
D	13.8	14.4
E	1.8	2.2
F	6.65	7.25
G	3.71	3.91
H	0.3	0.55
I	1.22	1.42
J	0.76	0.86
O	1.8	2.4
P	3.0Φ	3.4Φ
All Dimensions in millimeter		

Maximum Ratings and Electrical Characteristics

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

TYPE NUMBER (NOTE2)	SYMBOL	UG8K B05	UG8K B10	UG8K B20	UG8K B40	UG8K B60	UG8K B80	UG8K B100	UNIT
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} / V_{RWM} / V_{DC}	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Rectified Output Current — Without heat sink @T_c=90℃ / With heat sink @T_c=90 ℃	IF(AV)	4.0 / 8.0							A
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 < 8.3ms)	I^2t	93.375							A^2s
Forward Voltage per element @IF=8.0A	V_{FM}	1.1							V
Maximum DC reverse current at T_A=25℃ / rated DC blocking voltage per leg T_A=125℃	I_R	5.0 / 500							uA
Typical Junction Capacitance per leg	C_J	21							pF
Typical thermal resistance per leg(Note 1)	$R_{\theta JA}$ / $R_{\theta JL}$	55 / 15							℃/W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to +150							℃

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

Characteristic Curves (T_A=25 ℃ unless otherwise noted)

Fig. 1 Output Current Derating Curve

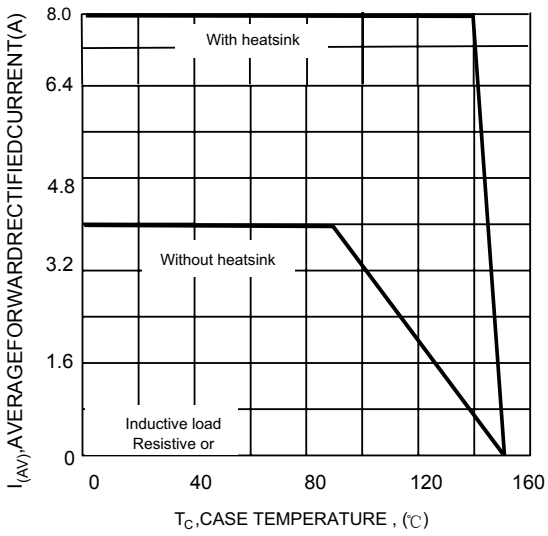


Fig. 2 Typical Forward Characteristics (per leg)

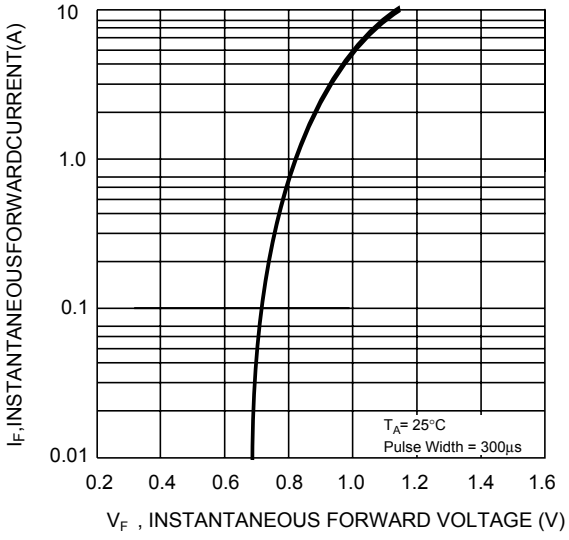


Fig. 3 Maximum Peak Forward Surge Current (per leg)

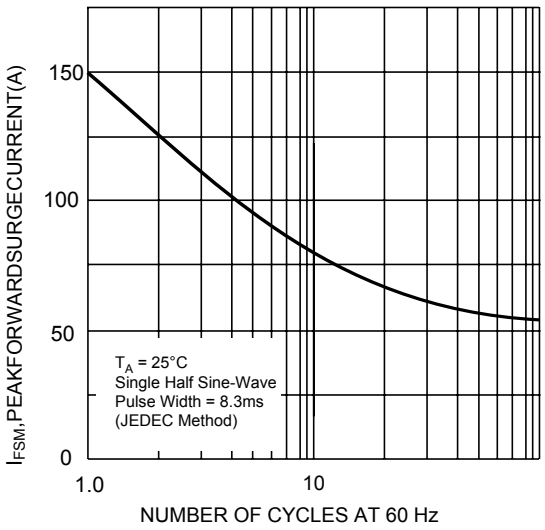


Fig.4 Typical Junction Capacitance Per Diode

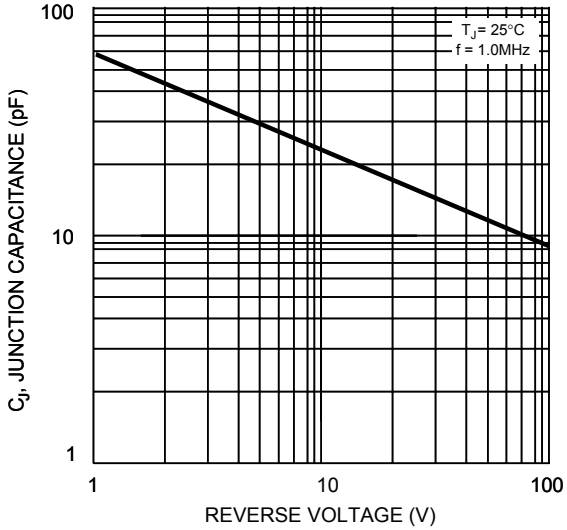


Fig. 5 T ypical Reverse Characteristics (per element)

