

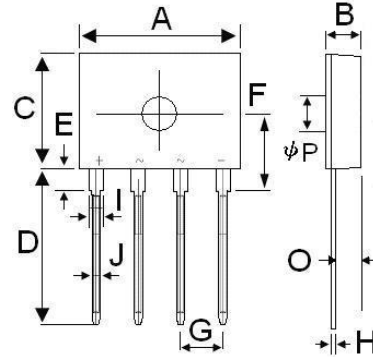


Single Phase 4.0Amp Glass passivated Bridge Rectifiers

D3K

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Idea for printed circuit board
- Glass passivated Junction chip
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed
250°C/10 seconds at terminals



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		

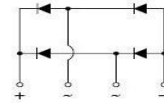
Mechanical Data

Case : Molded plastic body

Terminals : Solder plated, solderable per MIL-STD-750, Method 2026

Polarity : Polarity symbol marking on body

Mounting Position : Any



Maximum Ratings And Electrical Characteristics

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

Parameter	SYMBOLS	D4K B05	D4K B10	D4K B20	D4K B40	D4K B60	D4K B80	D4K B100	UNITS
Maximum repetitive 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 rectified current with heatsink	I _(AV)	4.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	120.0							A
Rating for fusing (t=8.3ms, T _A =25°C)	I _t ²	59.76							A ² _s
Maximum instantaneous forward voltage at 4.0A	V _F	1.10							V
Maximum DC reverse current T _A =25 ° Cat rated DC blocking voltage T _A =125°C	I _R	5.0 500							μ A
Typical junction capacitance (Note 1)	C _J	38.0							pF
Typical thermal resistance	R _{qJA}	55.0							°C/W
resistance per leg on Al plate heat-sink	R _{qJC}	8.2							
Operating junction and storage temperature range	T _J ,T _{STG}	-55 to +150							°C

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.



Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

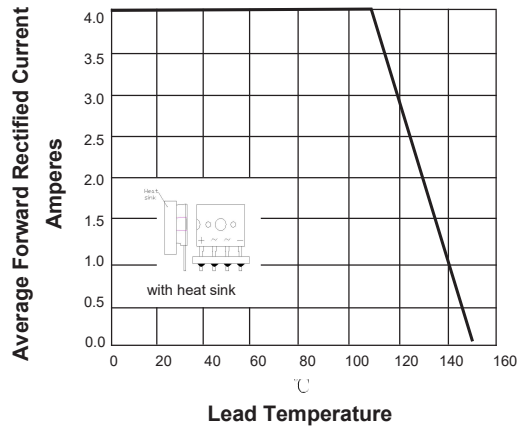


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

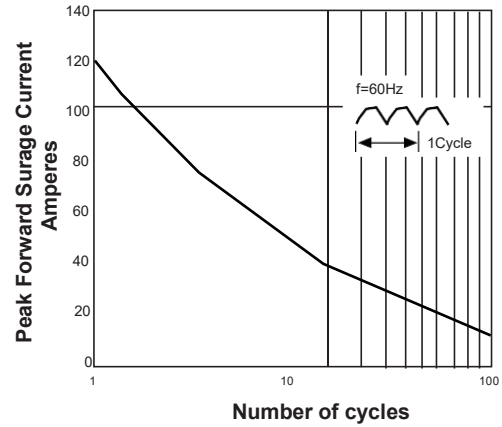


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

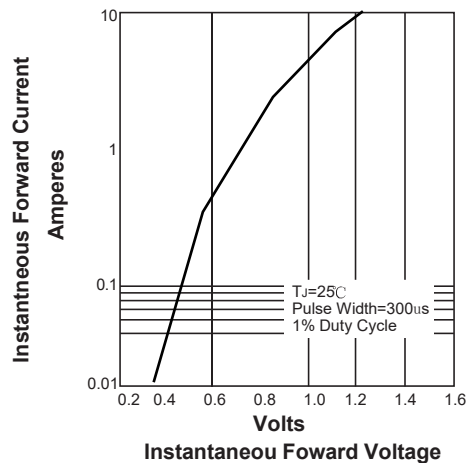
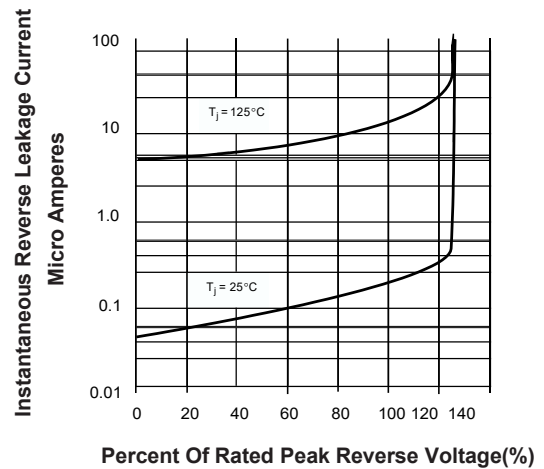
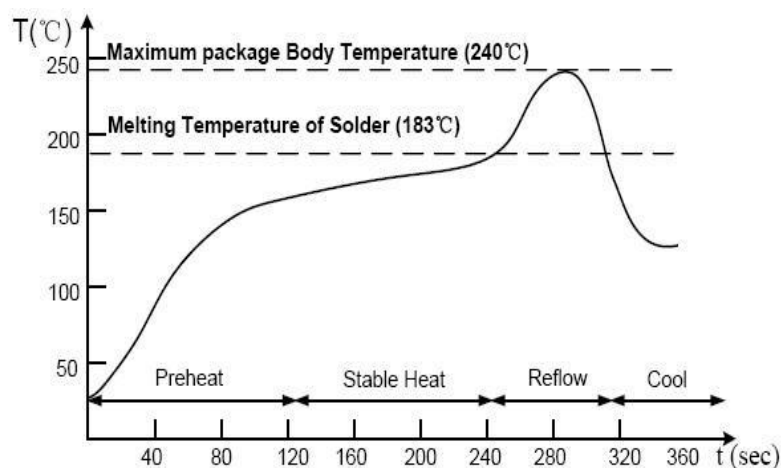


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS





Suggested Soldering Temperature Profile



Note

- Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- The device can be exposed to a maximum temperature of 265 $^{\circ}\text{C}$ for 10 seconds.
- Devices can be cleaned using standard industry methods and solvents.
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.