

SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIERS

Features

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

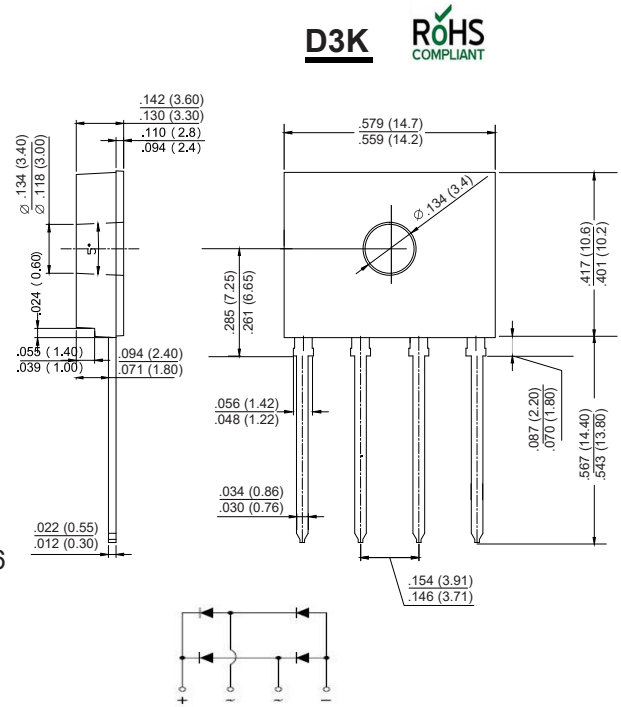
Mechanical Data

Case : D3K Molded plastic body

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

Polarity : Polarity symbol marking on body

Mounting Position : Any



Dimensions in inches and (millimeters)

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	RUG8K	RUG8K	RUG8K	RUG8K	RUG8K	RUG8K	RUG8K	UNITS
		B05	B10	B20	B40	B60	B80	B100	
Marking Code		MDD	MDD	MDD	MDD	MDD	MDD	MDD	
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	$I_{(AV)}$	8.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	170.0							A
Rating for fusing (t=8.3ms, Ta=25°C)	I_t^2	120.0							A ² _s
Maximum instantaneous forward voltage drop per bridge element at 8.0A	V_F	1.3							V
Maximum DC reverse current at rated DC blocking voltage	I_R	5							μA
		0.5							mA
Maximum Reverse Recovery Time (Note 3)	T_{rr}	150			250	500		ns	
Typical Junction Capacitance	C_J	56							pF
Typical Thermal Resistance per leg (Note 2)	$R_{\theta JA}$	55							°C/W
Operating junction temperature range	T_J	-55 to +150							°C
storage temperature range	T_{STG}	-55 to +150							°C

- Note: 1. Mounted on glass epoxy PC board with 1.3mm² solder pad.
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
 3. Reverse Recovery Test Conditions: IF=0.5A, IR=1.0A, IRR=0.25A

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

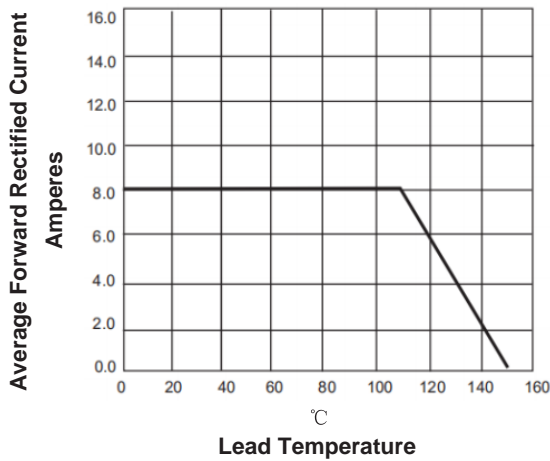


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

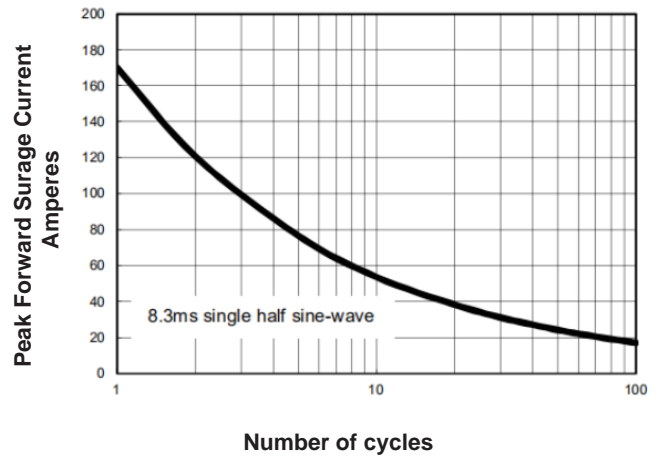


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

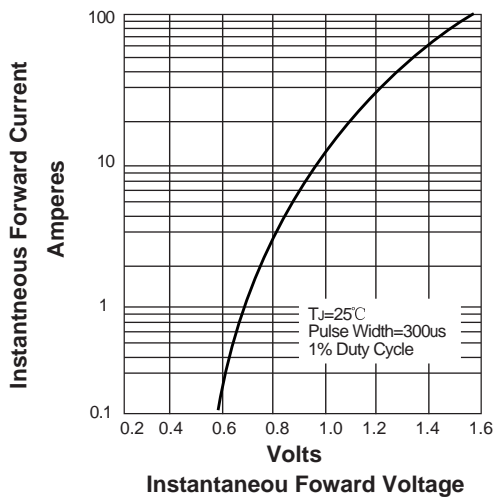


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

