

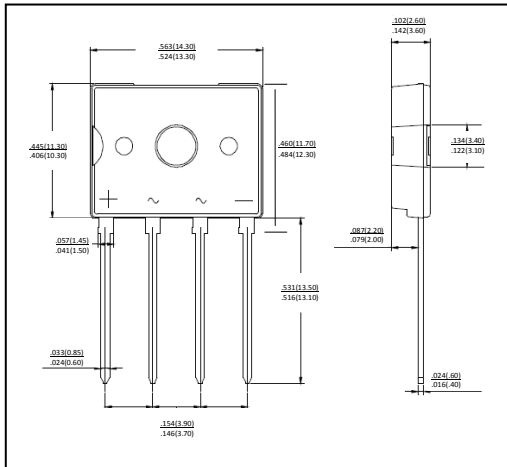


# D4UB05 THRU D4UB100

## SILICON BRIDGE RECTIFIERS

Reverse Voltage - 50 to 1000 Volts Forward Current - 4.0 Ampere

### PACKAGE : D3K



Dimensions in inches and (millimeters)

### FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Ideal for printed circuit boards
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed

### MECHANICAL DATA

**Case:** Molded plastic body

**Terminals:** Plated leads solderable per MIL-STD-750, Method 2026

**Polarity:** Polarity symbols marked on case

**Mounting Torque:** 0.8 N.M max

**Weight:** 1.41 grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for current capacitive load derate by 20%.

	SYMBOLS	D4UB05	D4UB10	D4UB20	D4UB40	D4UB60	D4UB80	D4UB100	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	VOLTS
Maximum Average Forward Rectified Current at $T_C = 100^\circ C$ $T_A = 40^\circ C$	$I_{(AV)}$	4.0 (NOTE1)						Amps	
		3.0 (NOTE2)							
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	120.0						Amps	
Rating for Fusing ( $t < 8.3ms$ )	$I^2t$	60						$A^2s$	
Maximum instantaneous forward voltage drop per bridge element at 1.0A	$V_F$	1.1						Volts	
Maximum DC reverse current at rated DC blocking voltage $T_A = 25^\circ C$ $T_A = 100^\circ C$	$I_R$	5						$\mu A$	
		0.5						mA	
Typical Thermal Resistance (Note 2)	$R_{JA}$	40						C/W	
Operating junction temperature range	$T_J$	-55 to +150						C	
storage temperature range	$T_{STG}$	-55 to +150						C	

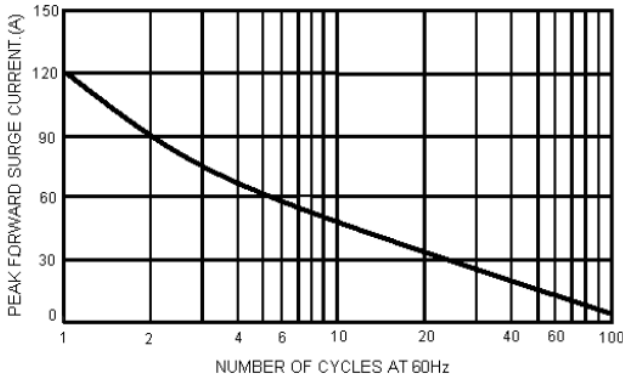
#### NOTES:

1. Unit case mounted on 1.6\*1.6\*0.06" thick (5.1\*5.1\*0.15cm) Al. Plate

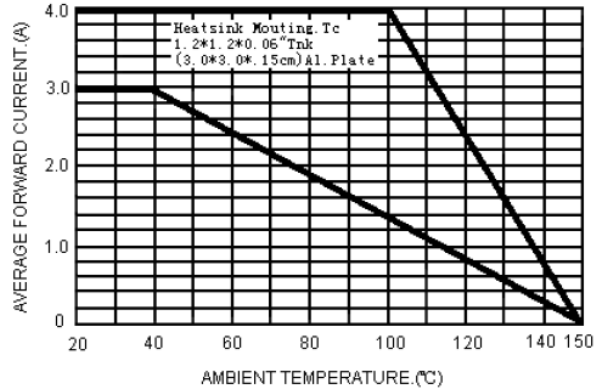
2. Unit mounted on P.C.B. with 0.5\*0.5" (12.7\*12.7mm) copper pads and 0.375" (9.5mm) lead length

## RATINGS AND CHARACTERISTIC CURVES D4UB05 THRU D4UB100

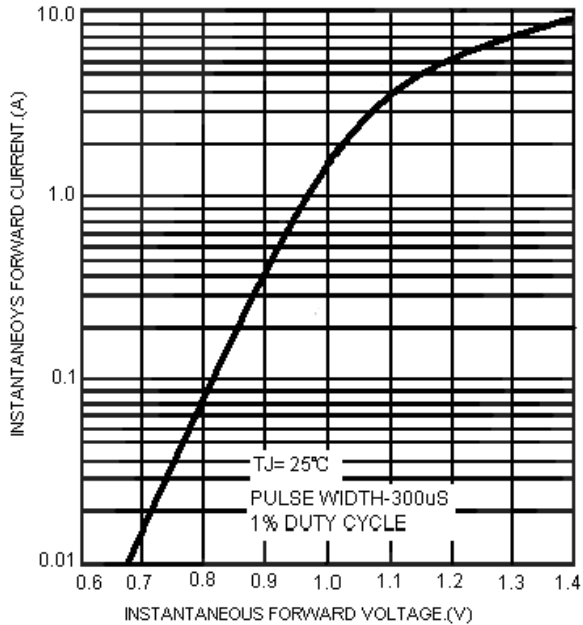
**FIG.1-MAXIMUM NONO-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT**



**FIG.2-MAXIMUM FORWARD CURRENT DERATING CURVE**



**FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT**



**FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT**

