

# D3K3005 THRU D3K310

BRIDGE RECTIFIERS GLASS PASSIVATED  
 REVERSE VOLTAGE - 50 to 1000 Volts  
 FORWARD CURRENT - 3.0 Amperes

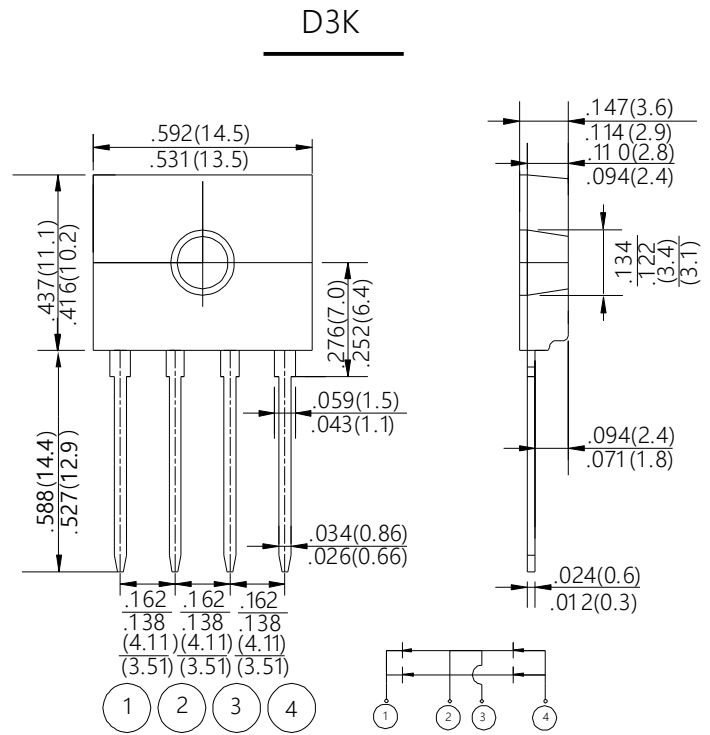


## FEATURES

- Glass passivated chip junction
- High case dielectric strength
- High surge current capability
- Ideal for printed circuit board

## MACHANICAL DATA

- Terminal: Plated leads solderable per MIL-STD 202E, Method 208C
- Case: UL-94 Class V-0 recognized Flame Retardant Epoxy
- Polarity: Polarity symbol marked on body
- Mounting position: any



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	D3K3005	D3K301	D3K302	D3K304	D3K306	D3K308	D3K310	UNIT
Maximum Recurrent 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 Output Current @ $T_c=140^\circ\text{C}$ (with heatsink) @ $T_a=29^\circ\text{C}$ (without heatsink)	$I_{AV}$	3 1.2							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	$I_{FSM}$	60							A
Maximum Forward Voltage at 1.5A DC	$V_F$	1.05							V
$I^2t$ Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	14.94							$\text{A}^2\text{s}$
Maximum Typical Thermal Resistance without heatsink	$R_{\theta Ja}$	55							$^\circ\text{C}/\text{W}$
with heatsink	$R_{\theta Jc}$	1.5							
without heatsink	$R_{\theta JL}$	15							
Maximum DC Reverse Current @ $T_a = 25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_a = 125^\circ\text{C}$	$I_R$	10.0 500							$\mu\text{A}$
Operating Temperature Range	$T_J$	-55 to +150							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150							$^\circ\text{C}$

FIG.1-DERATING CURVE OUTPUT RECTIFIED CURRENT

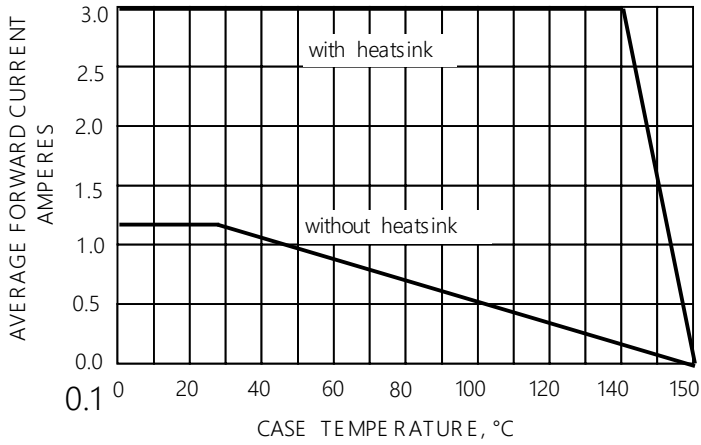


FIG.2-MAXIMUM NON-REPE TITIVE SURGE CURRENT

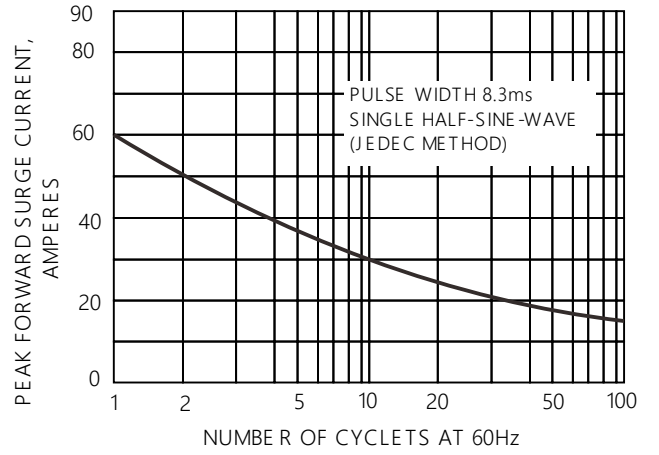


FIG.3-TYPICAL FORWARD CHARACTERISTICS

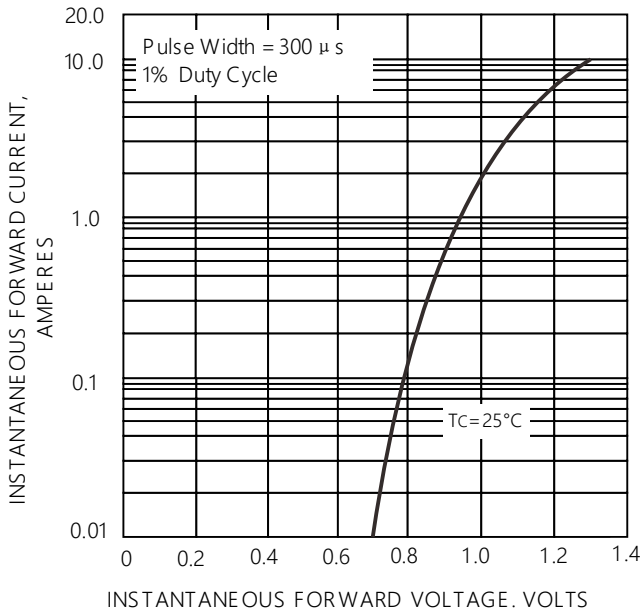


FIG.5-TYPICAL REVERSE CHARACTERISTICS

