

## 3.0A GLASS PASSIVATED BRIDGE RECTIFIER

Reverse Voltage - 100 to 1000 V

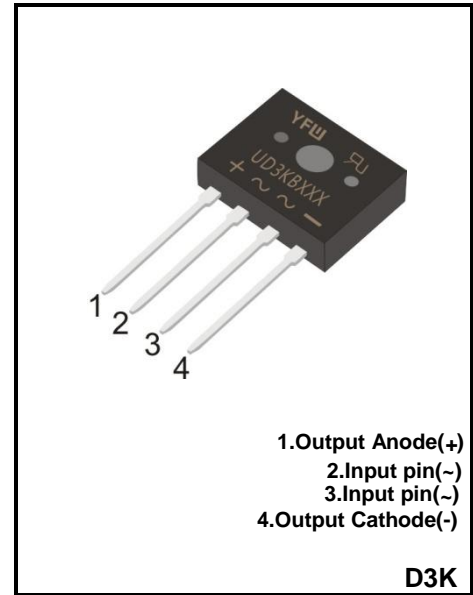
Forward Current – 3.0A

### FEATURES

- ◆ High current capability
- ◆ Low forward voltage drop
- ◆ Glass Passivated Chip Junction
- ◆ Low power loss, high efficiency
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

### MECHANICAL DATA

- ◆ Case: D3K
- ◆ Terminals: Solderable per MIL-STD-202E, Method 208C
- ◆ Case: UL-94 Class V-0 recognized Flame Retardant Epoxy



### Maximum Ratings and Electrical characteristics

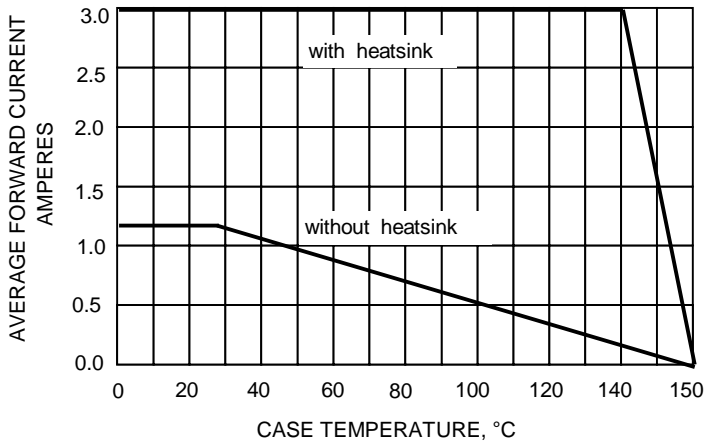
Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbols	UD3KB10	UD3KB20	UD3KB40	UD3KB60	UD3KB80	UD3KB100	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	100	200	400	600	800	1000	V
Average Rectified Output Current	$I_{(AV)}$	3						A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	90						A
Forward Voltage per element @ $I_F = 1.5A$ DC	$V_F$	1.1						V
Maximum DC Reverse Current @ $T_a = 25^\circ C$ at Rated DC Blocking Voltage @ $T_a = 125^\circ C$	$I_R$	10 500						$\mu A$
I2t Rating for Fusing(3ms $\leq t \leq$ 8.3ms)	$I^2t$	35						A <sup>2</sup> S
Maximum Typical Thermal Resistance	$R_{\theta JA}$ wwithout heatsink $R_{\theta JC}$ wwith heatsink $R_{\theta JL}$ wwithout heatsink	55 1.5 15						$^\circ C/W$
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 ~ +150						$^\circ C$

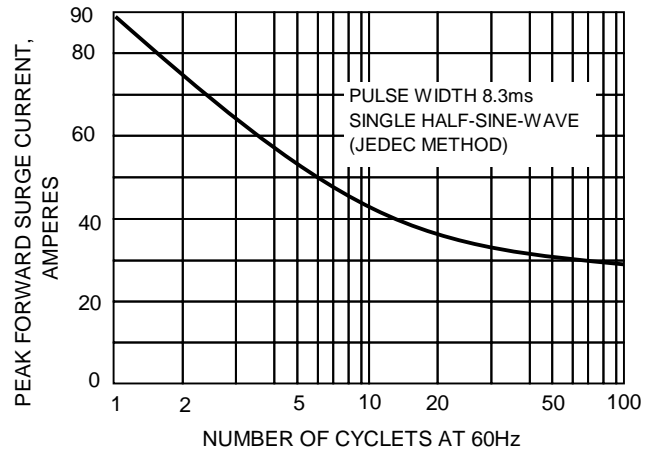
(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) Device mounted on 50mm\*50mm\*1.6mm Cu plate heatsink.

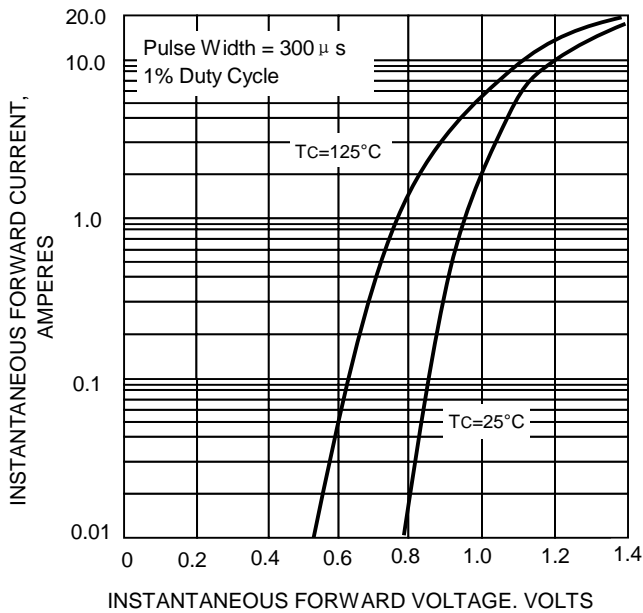
**FIG.1-DERATING CURVE OUTPUT RECTIFIED CURRENT**



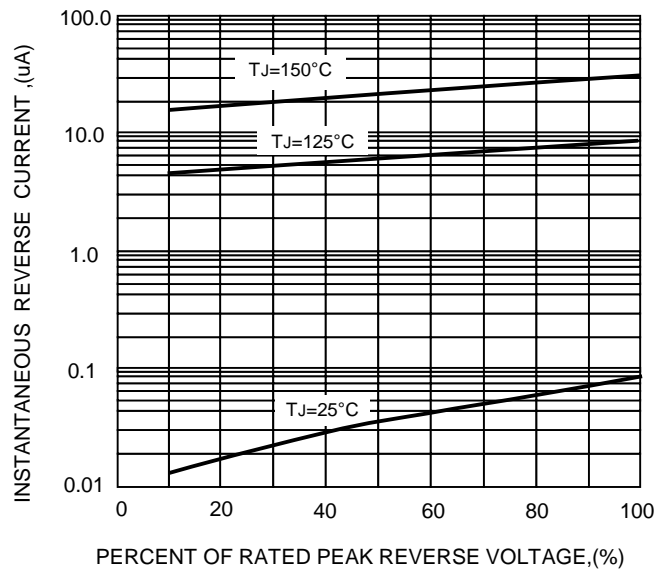
**FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT**



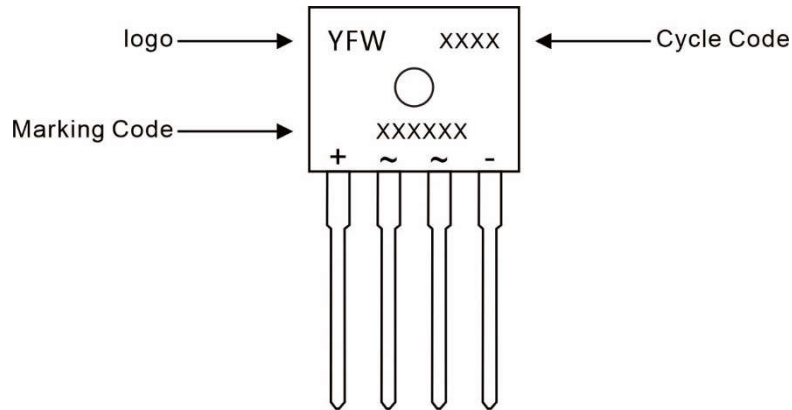
**FIG.3-TYPICAL FORWARD CHARACTERISTICS**



**FIG.5-TYPICAL REVERSE CHARACTERISTICS**



**Marking Diagram**



**Ordering information**

Package	Packing Description	Packing Quantity
D3K	bulk	500PCS/Box 5000PCS/Carton

**Package Dimensions**

**D3K**

Dim.	Millimeter(mm)		Dimensions inInch	
	Min.	Max.	Min.	Max.
A	13.5	14.5	0.53	0.57
B	10.0	11.0	0.39	0.43
C	1.8	2.4	0.07	0.09
D	12.8	14.8	0.50	0.58
E	3.76	3.86	0.15	0.15
F	0.65	0.85	0.03	0.03
G	1.2	1.4	0.05	0.06
H	5.0	5.5	0.20	0.22
I	3.05	3.45	0.12	0.14
J	3.1	3.6	0.12	0.14

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