

8.0A Super Fast Recovery Rectifier Bridge

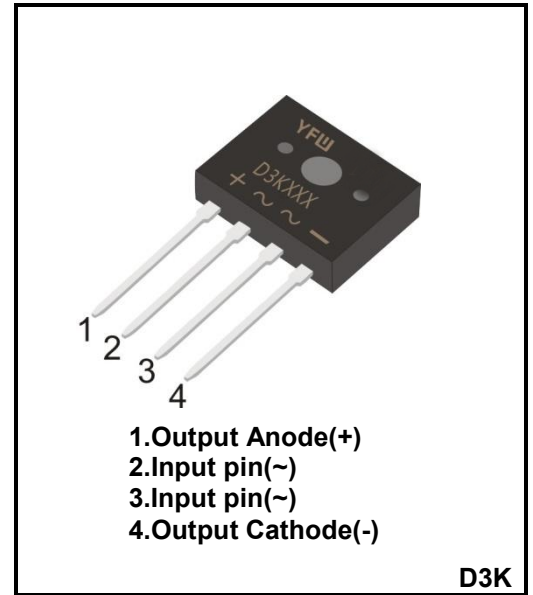
Reverse Voltage - 300 to 600 V
Forward Current – 8.0A

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	D3K803SF	D3K806SF	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	300	600	V
Maximum RMS voltage	V_{RMS}	200	420	V
Maximum DC Blocking Voltage	V_{DC}	300	600	V
Average Rectified Output Current	$I_{(AV)}$	8.0		A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	190		A
Forward Voltage per element @ $I_F=8A$ DC	V_F	0.95	1.45	V
Maximum Reverse Recovery Time	T_{rr}	35		nS
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ $T_a=25^{\circ}C$	5		μA
	@ $T_a=125^{\circ}C$	500		
I^2t Rating for Fusing($3ms \leq t \leq 8.3ms$)	I^2t	120		A^2S
Typical Junction Capacitance	C_j	50		pF
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +175		$^{\circ}C$

(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

Ratings and Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

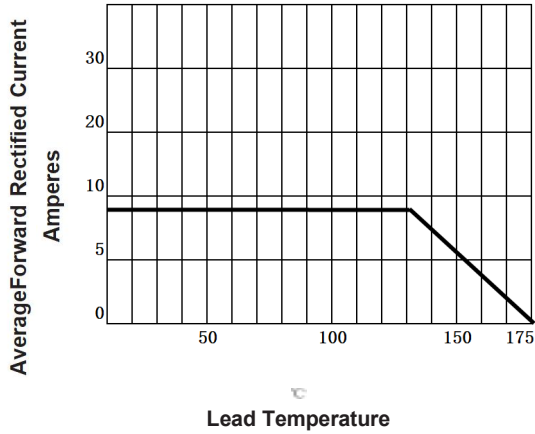


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

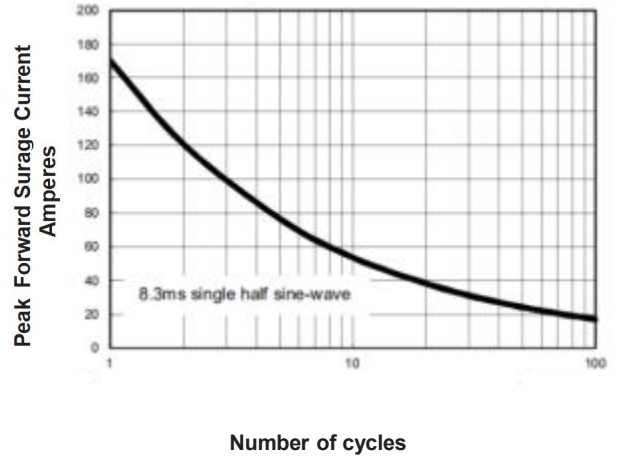


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

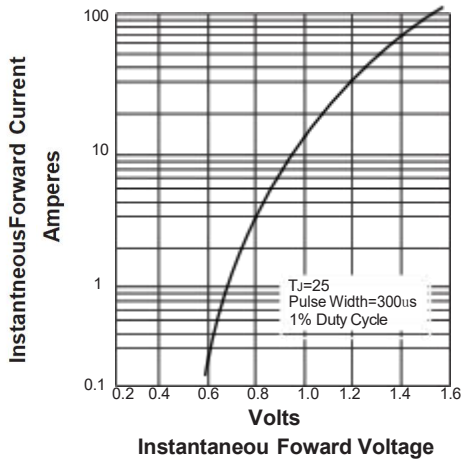
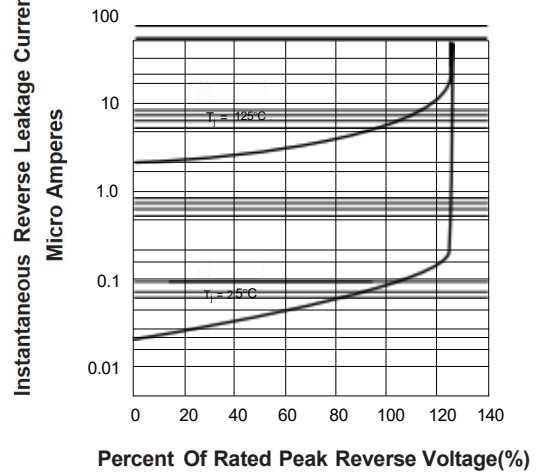
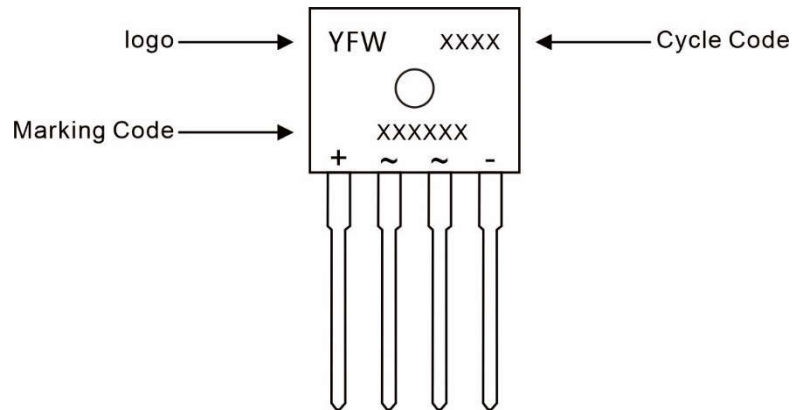


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



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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