

FEATURES

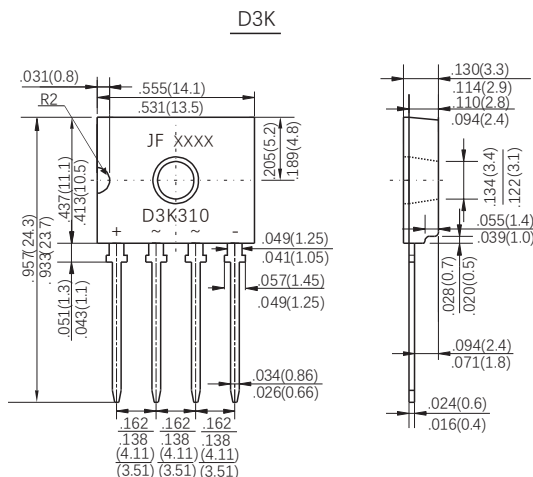
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated chip junction
- High current capability
- Low forward voltage drop
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU

MECHANICAL DATA

- Case: D3K molded plastic body
- Terminals: Plated leads solderable per MIL-STD-750,method 2026
- Mounting Position: Any

TYPICAL APPLICATIONS

Used in AC/DC bridge full wave rectification for SMPS, lighting ballaster, adapter, charger, home appliances, office equipment, and telecommunication applications.



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, resistive or inductive load. For capacitive load, derate current by 20%.)

Parameters	Symbol	D3K3005	D3K301	D3K302	D3K304	D3K306	D3K308	D3K310	Units
Maximum Reverse 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 @T _C =115°C with Heatsink @T _a =25°C without Heatsink	$I_{F(AV)}$	3.0 1.2							Amps
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load	I_{FSM}	60							Amps
Rating for Fusing (t = 8.3ms)	I^2t	14.94							A ² S
Maximum Instantaneous Forward Voltage at IF=1.5A DC	V_F	1.0							Volts
Maximum DC Reverse Current at rated DC blocking voltage	T _J =25°C	5.0							μA
	T _J =125°C	100							μA
Typical Thermal Resistance (Note2) Junction to Ambient Junction to Case	R _{θJA}	55							°C/W
	R _{θJC}	1.5							°C/W
Typical Junction capacitance (Note 1)	C _J	12							pF
Operating and Storage Temperature Range	T _{JH} , T _{STG}	-55 to +150							°C

NOTE: 1. Measured at 1MHz and applied reverse voltage of 4.0 Volts.

2) Device mounted on FR-4 PCB with 75mm x 45mm x 5.5mm aluminum heatsink.

FIG.1-MAXIMUM FORWARD SURGE CURRENT

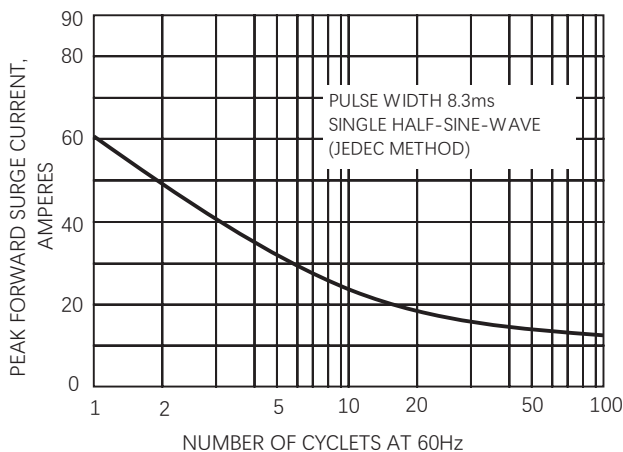


FIG.2 FORWARD CURRENT DERATING CURVE

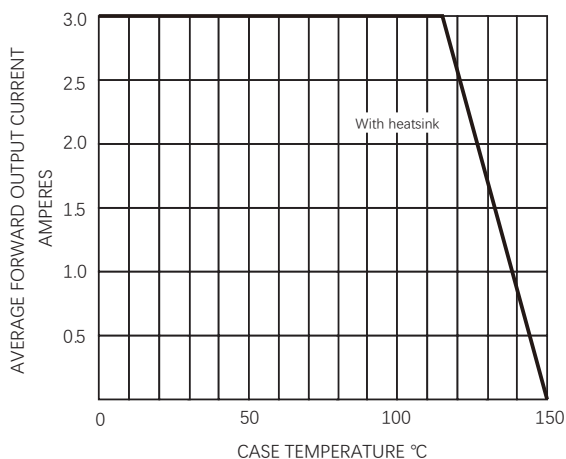


FIG. 3-TYPICAL FORWARD CHARACTERISTICS

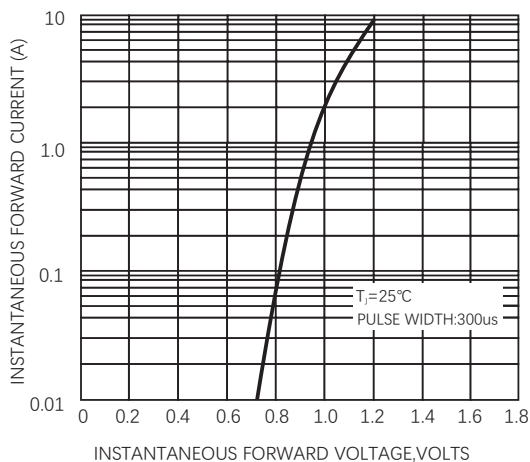
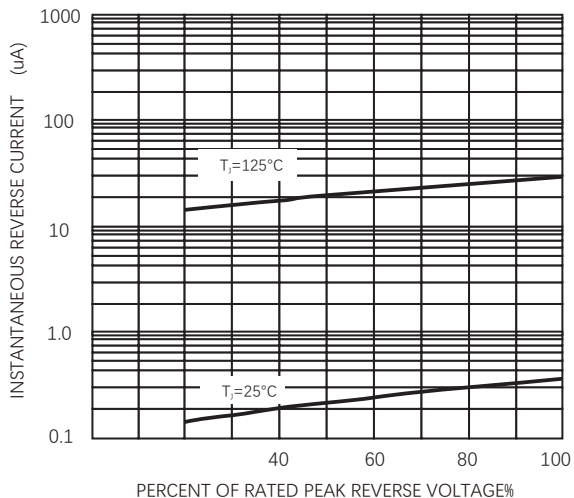


FIG.4 -TYPICAL REVERSE CHARACTERISTICS



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