

■ FEATURES

- UL recognition, file #E230084
- Glass passivated chip junction
- Ideal for printed circuit boards
- High surge current capability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

■ TYPICAL APPLICATIONS

General purpose use in AC/DC bridge full wave rectification for monitor, TV, printer, power supply, switching mode power supply, adapter, audio equipment, and home appliances applications.

■ MECHANICAL DATA

- **Package:** D3K
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

■ MAXIMUM RATINGS (T_a=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	D3UB05	D3UB10	D3UB20	D3UB40	D3UB60	D3UB80	D3UB100
Device marking code				D3UB05	D3UB10	D3UB20	D3UB40	D3UB60	D3UB80	D3UB100
Maximum Repetitive Peak Reverse Voltage		VRRM	V	50	100	200	400	600	800	1000
Maximum RMS Voltage		VRMS	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage		VDC	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load	With heatsink T _c =140°C	IO	A	3.0						
	Without heatsink T _a =25°C			1.2						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T _j =25°C		IFSM	A	90						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T _j =25°C				180						
Current squared time @1ms≤t≤8.3ms T _j =25°C, Rating of per diode		I ² t	A ² s	33						
Storage temperature		T _{stg}	°C	-55 ~ +150						
Junction temperature		T _j	°C	-55 ~ +150						
Dielectric strength @ Terminals to case, AC 1 minute		Vdis	KV	2						
Mounting torque @Recommend torque: 5kg·cm		Tor	kg·cm	8						

■ ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	D3UB05	D3UB10	D3UB20	D3UB40	D3UB60	D3UB80	D3UB100
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =1.5A	1.0						
Maximum DC reverse current at rated DC blocking voltage per diode	I _R	μA	T _j =25°C	5						
			T _j =125°C	100						
Typical junction capacitance	C _j	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	25						

■ THERMAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	D3UB05	D3UB10	D3UB20	D3UB40	D3UB60	D3UB80	D3UB100
Thermal resistance	Between junction and ambient, Without heatsink	R _{θJ-A}	55.0						
	Between junction and case, With heatsink	R _{θJ-C}	1.5						

Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

■ PACKAGING INFORMATION

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
D3UB05 - D3UB100	B1	Approximate 1.358	25	1500	6000	TUBE

■ CHARACTERISTICS (TYPICAL)

FIG1: I_o-T_c Curve

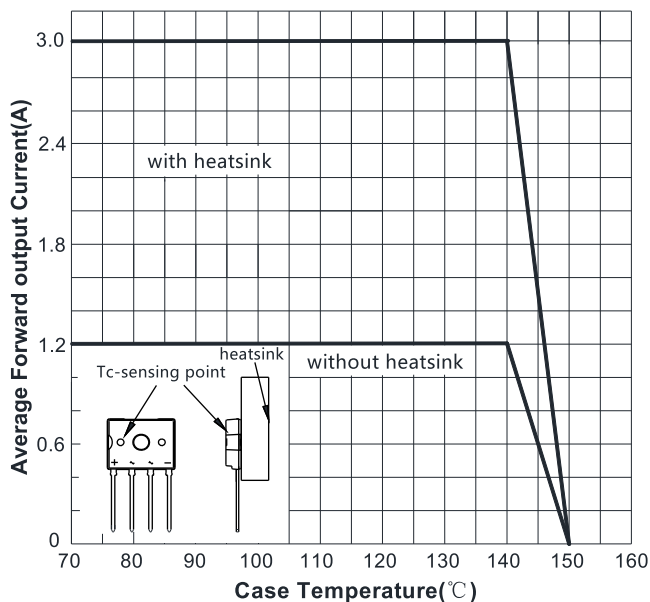


FIG2: Surge Forward Current Capability

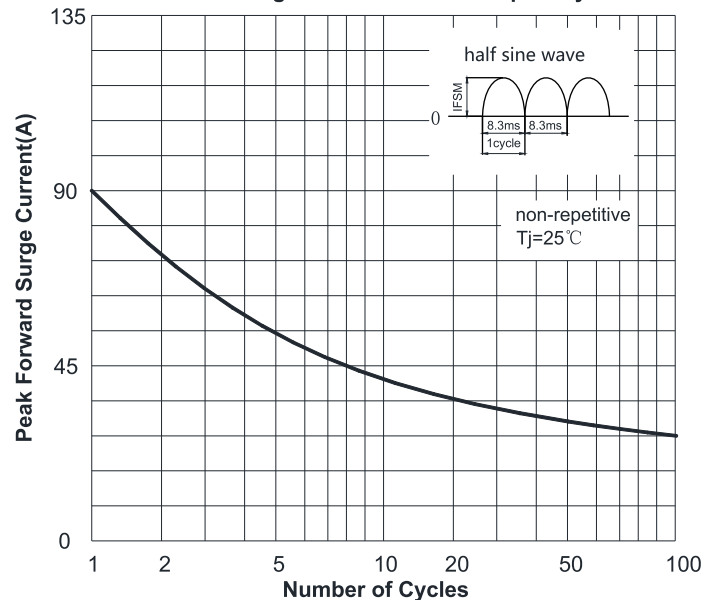


FIG3: Typical Forward Voltage

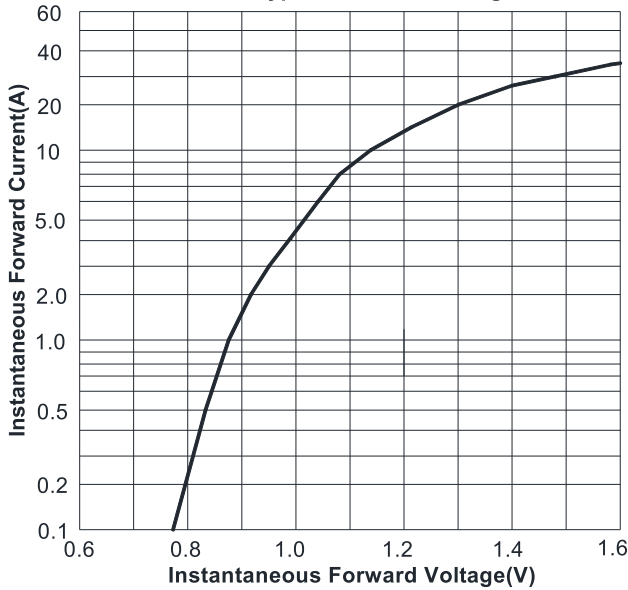
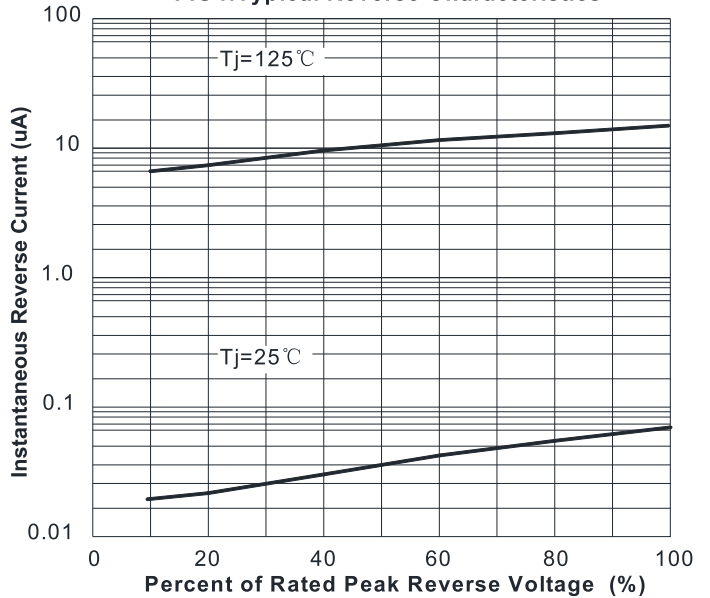
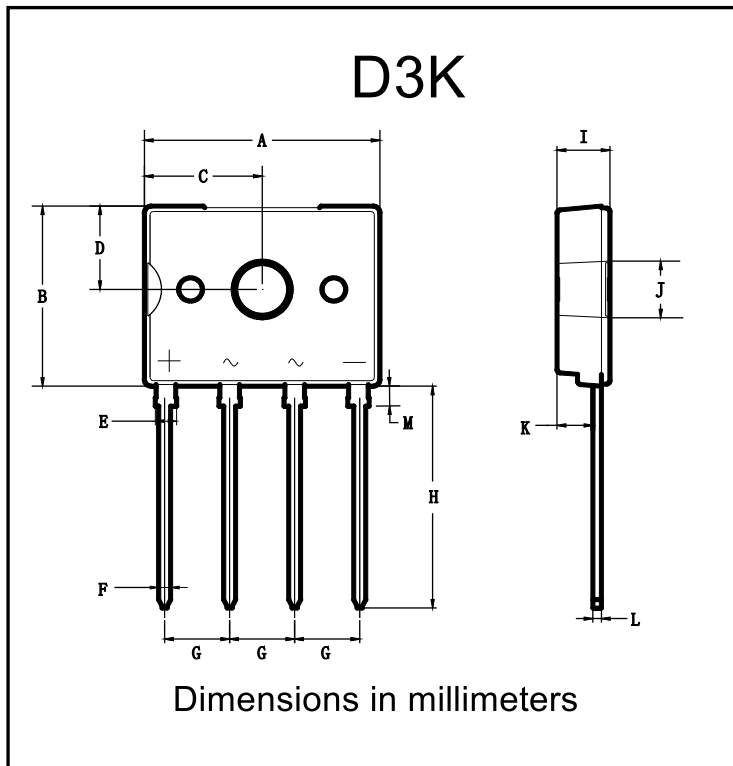


FIG4: Typical Reverse Characteristics



■ OUTLINE DIMENSIONS



D3K		
Dim	Min	Max
A	13.30	14.30
B	10.30	11.30
C	6.40	7.40
D	4.50	5.50
E	1.05	1.45
F	0.60	0.85
G	3.70	3.90
H	13.10	13.50
I	2.60	3.60
J	3.10	3.40
K	2.00	2.20
L	0.40	0.60
M	0.90	1.50