

### ■ 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<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	D4UB05	D4UB10	D4UB20	D4UB40	D4UB60	D4UB80	D4UB100
Device marking code				D4UB05	D4UB10	D4UB20	D4UB40	D4UB60	D4UB80	D4UB100
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 <sub>c</sub> =138°C	IO	A	4.0						
	Without heatsink T <sub>a</sub> =25°C			1.3						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T <sub>j</sub> =25°C		IFSM	A	135						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T <sub>j</sub> =25°C				250						
Current squared time @1ms≤t≤8.3ms T <sub>j</sub> =25°C, Rating of per diode		I <sup>2</sup> t	A <sup>2</sup> s	62.5						
Storage temperature		T <sub>stg</sub>	°C	-55 ~ +150						
Junction temperature		T <sub>j</sub>	°C	-55 ~ +150						
Dielectric strength @ Terminals to case, AC 1 minute		V <sub>dis</sub>	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	D4UB05	D4UB10	D4UB20	D4UB40	D4UB60	D4UB80	D4UB100	
Maximum instantaneous forward voltage drop per diode	$V_F$	V	$I_{FM}=2.0A$							1.0	
Maximum DC reverse current at rated DC blocking voltage per diode	$I_R$	$\mu A$	$T_j=25^\circ\text{C}$							5	
			$T_j=125^\circ\text{C}$							100	
Typical junction capacitance	$C_j$	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C							40	

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

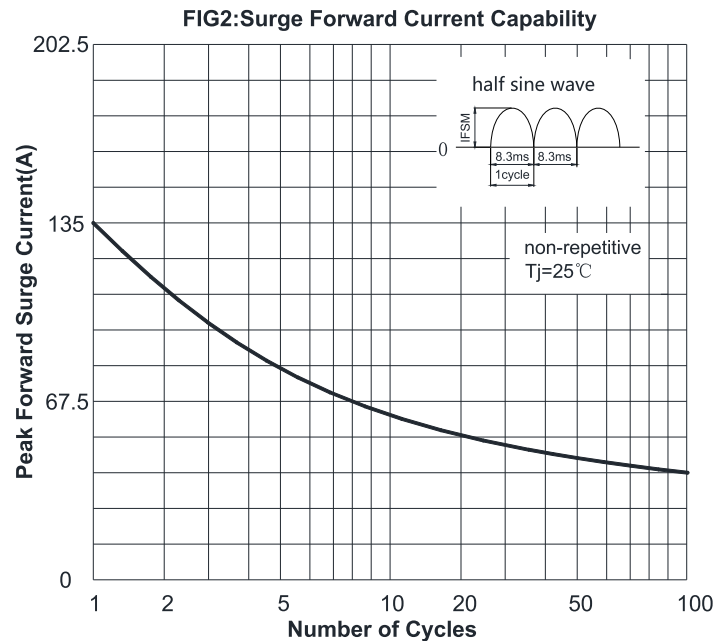
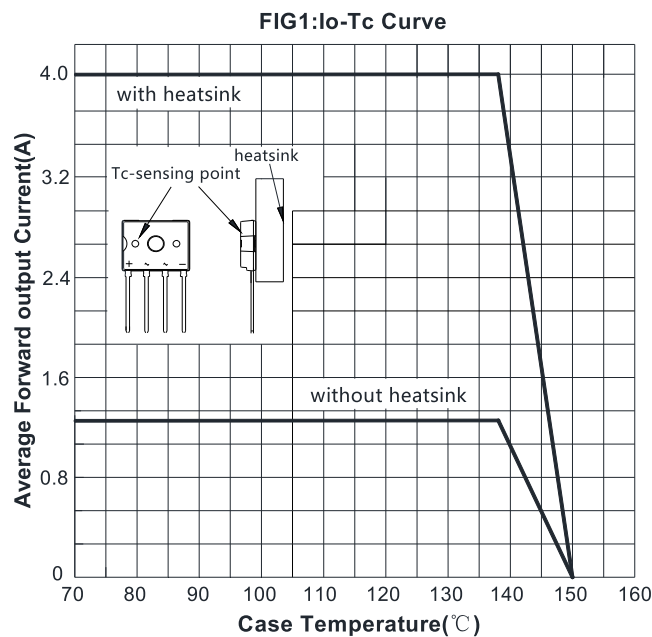
PARAMETER		SYMBOL	UNIT	D4UB05	D4UB10	D4UB20	D4UB40	D4UB60	D4UB80	D4UB100	
Thermal resistance	Between junction and ambient, Without heatsink	$R_{\theta J-A}$	$^\circ\text{C/W}$							55.0	
	Between junction and case, With heatsink	$R_{\theta J-C}$								1.5	

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

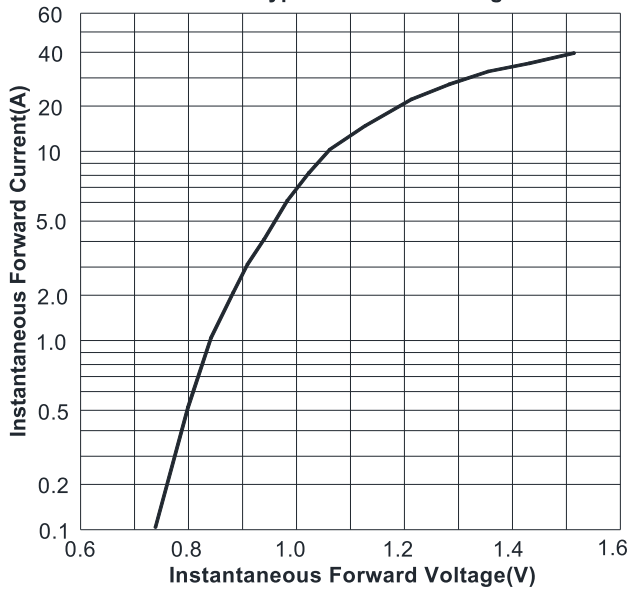
■ **PACKAGING INFORMATION**

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
D4UB05- D4UB100	B1	Approximate 1.266	25	1500	6000	TUBE

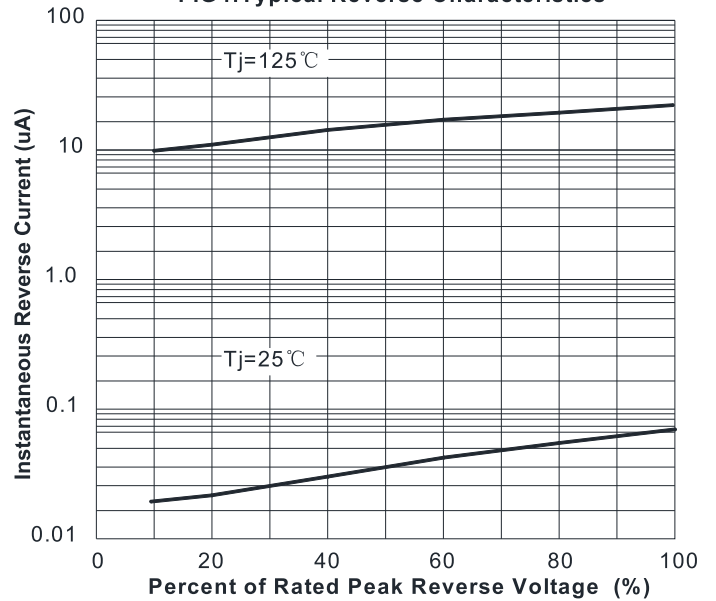
■ **CHARACTERISTICS (TYPICAL)**



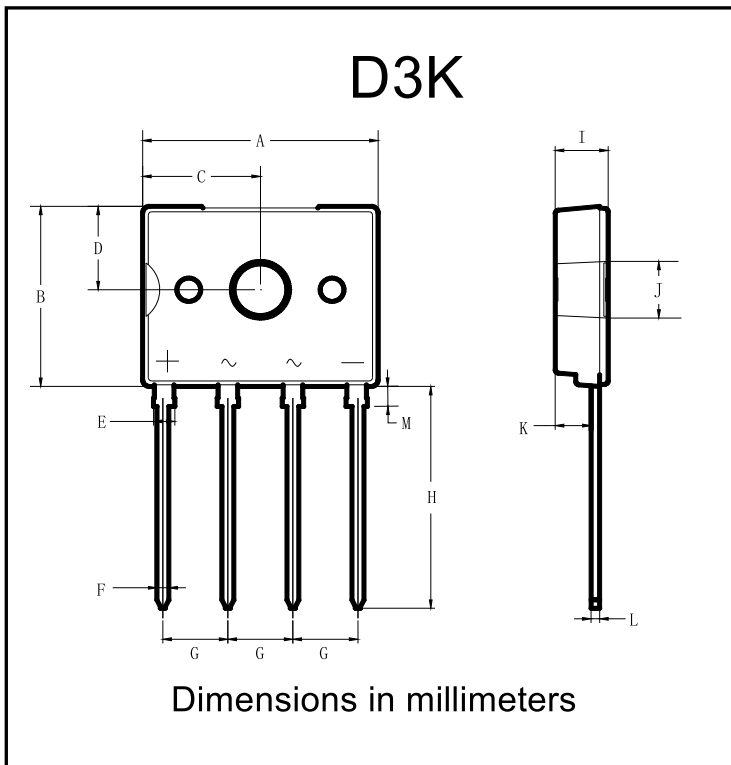
**FIG3: Typical Forward Voltage**



**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