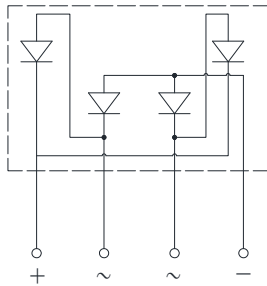
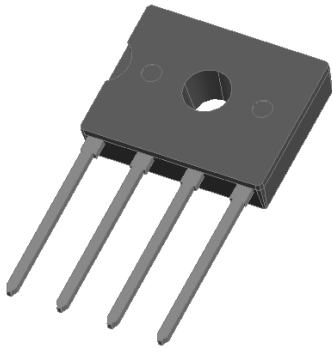


## Bridge Rectifiers



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

PARAMETER		SYMBOL	UNIT	D6UB05	D6UB10	D6UB20	D6UB40	D6UB60	D6UB80	D6UB100
Device marking code				D6UB05	D6UB10	D6UB20	D6UB40	D6UB60	D6UB80	D6UB100
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 $T_c = 138^\circ\text{C}$	IO	A	6.0						
	Without heatsink $T_a = 25^\circ\text{C}$			1.5						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, $T_j = 25^\circ\text{C}$		IFSM	A	170						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, $T_j = 25^\circ\text{C}$				320						
Current squared time @1ms ≤ t ≤ 8.3ms $T_j = 25^\circ\text{C}$ , Rating of per diode		I <sup>2</sup> t	A <sup>2</sup> s	120						
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						



# D6UB05 THRU D6UB100

## ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	D6UB05	D6UB10	D6UB20	D6UB40	D6UB60	D6UB80	D6UB100	
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	IFM=3.0A								1.00
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>R</sub>	μA	T <sub>j</sub> =25°C								5
			T <sub>j</sub> =125°C								100
Typical junction capacitance	C <sub>j</sub>	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C								53

## ■ Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	D6UB05	D6UB10	D6UB20	D6UB40	D6UB60	D6UB80	D6UB100	
Thermal resistance	Between junction and ambient, Without heatsink	R <sub>θJ-A</sub>	°C/W								55.0
	Between junction and case, With heatsink	R <sub>θJ-C</sub>									1.5

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

## ■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
D6UB05 - D6UB100	B1	Approximate 1.269	25	1500	6000	TUBE

## ■ Characteristics (Typical)

FIG1: I<sub>o</sub>-T<sub>c</sub> Curve

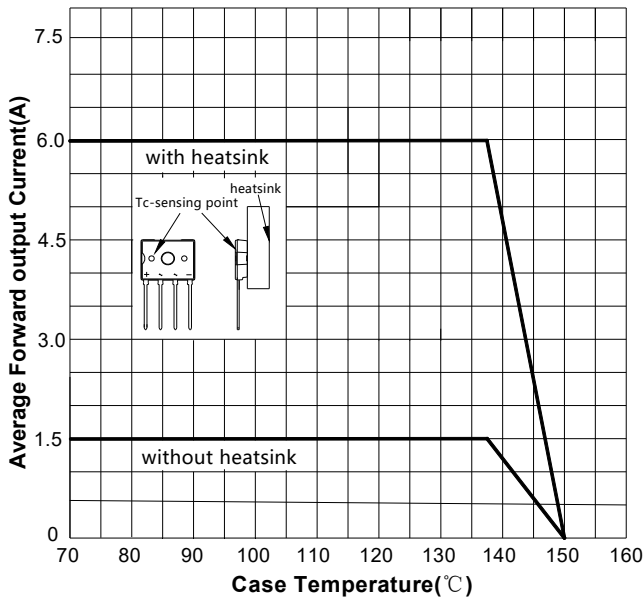
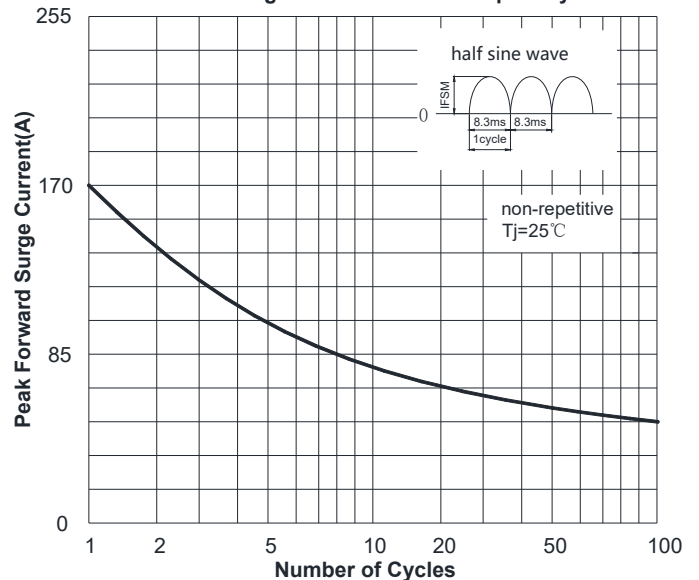


FIG2: Surge Forward Current Capability





# D6UB05 THRU D6UB100

FIG3: Typical Forward Voltage

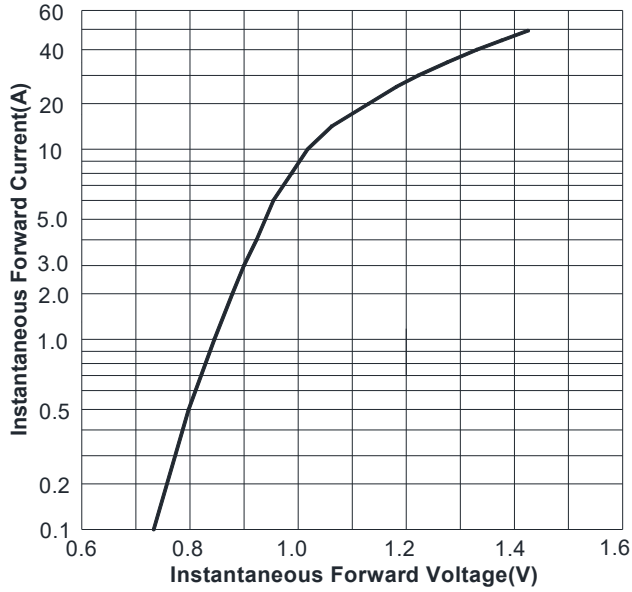
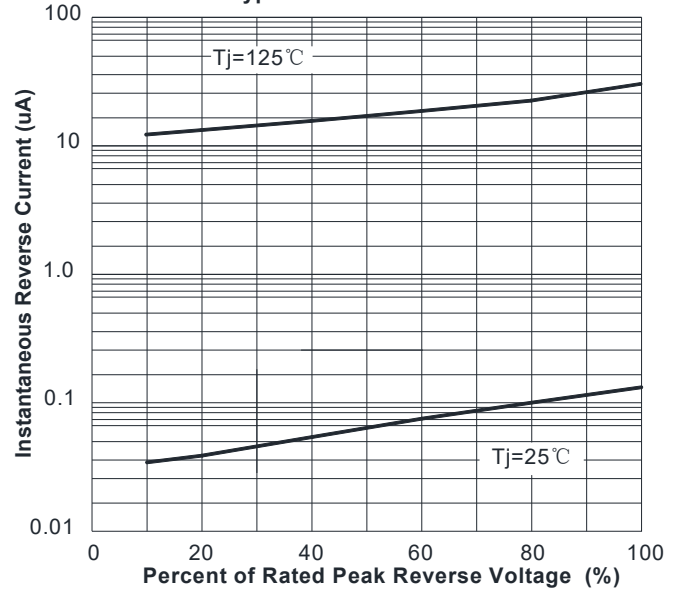
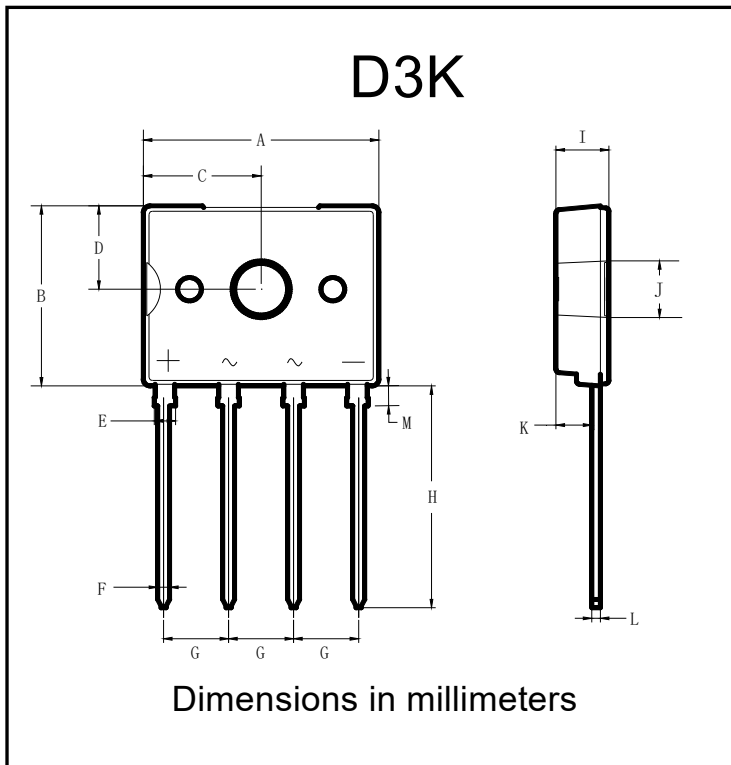


FIG4: Typical Reverse Characteristics



## ■ 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



## D6UB05 THRU D6UB100

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