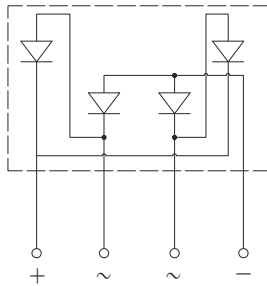
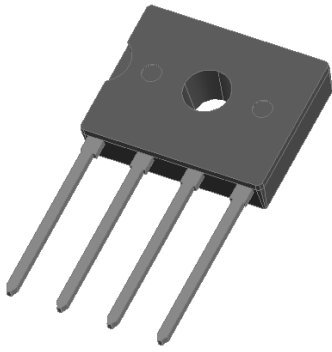


## Bridge Rectifiers



### 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	D3UB05A	D3UB10A	D3UB20A	D3UB40A	D3UB60A	D3UB80A	D3UB100A
Device marking code			D3UB05A	D3UB10A	D3UB20A	D3UB40A	D3UB60A	D3UB80A	D3UB100A
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 $T_c = 140^\circ\text{C}$	IO	A	3.0					
	Without heatsink $T_a = 25^\circ\text{C}$			1.2					
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, $T_j = 25^\circ\text{C}$	IFSM	A	100						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, $T_j = 25^\circ\text{C}$			200						
Current squared time @ $1\text{ms} \leq t \leq 8.3\text{ms}$ $T_j = 25^\circ\text{C}$ , Rating of per diode	$I^2t$	$\text{A}^2\text{s}$	41						
Storage temperature	$T_{\text{stg}}$	$^\circ\text{C}$	-55 ~ +150						
Junction temperature	$T_j$	$^\circ\text{C}$	-55 ~ +150						
Dielectric strength @ Terminals to case, AC 1 minute	Vdis	KV	2						
Mounting torque @Recommend torque: 5kg·cm	Tor	kg·cm	8						



# D3UB05A THRU D3UB100A

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	D3UB05A	D3UB10A	D3UB20A	D3UB40A	D3UB60A	D3UB80A	D3UB100A
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>FM</sub> =1.5A				1.0			
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				34			

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

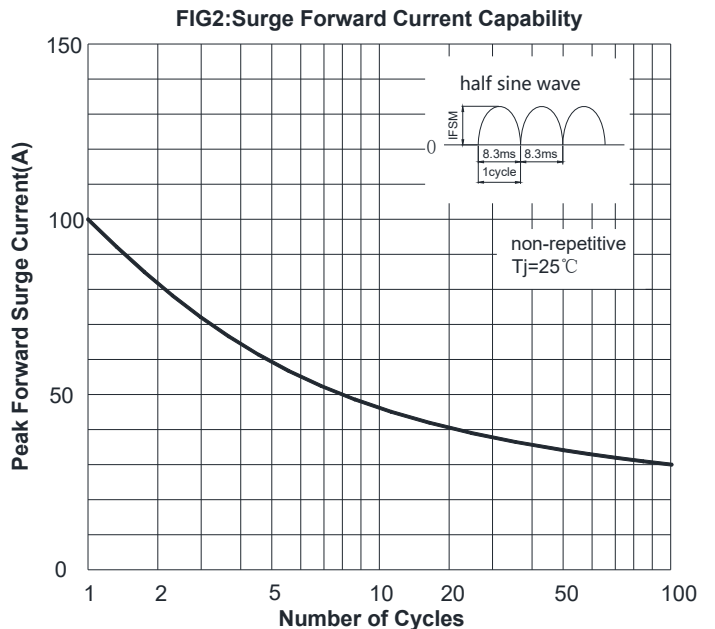
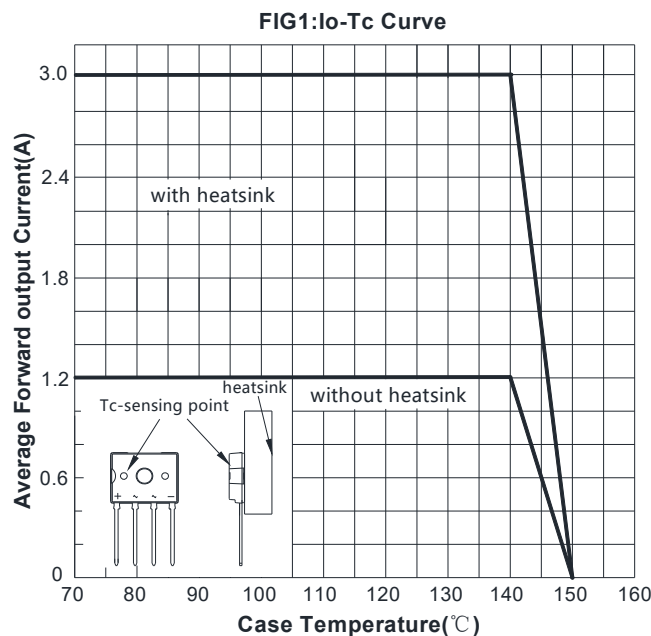
PARAMETER		SYMBOL	UNIT	D3UB05A	D3UB10A	D3UB20A	D3UB40A	D3UB60A	D3UB80A	D3UB100A
Thermal resistance	Between junction and ambient, Without heatsink	R <sub>θJ-A</sub>	°C/W				55.0			
	Between junction and case, With heatsink	R <sub>θJ-C</sub>					1.5			

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

## ■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
D3UB05A -D3UB100A	B1	Approximate 1.265	25	1500	6000	TUBE

## ■ Characteristics (Typical)





# D3UB05A THRU D3UB100A

FIG3: Typical Forward Voltage

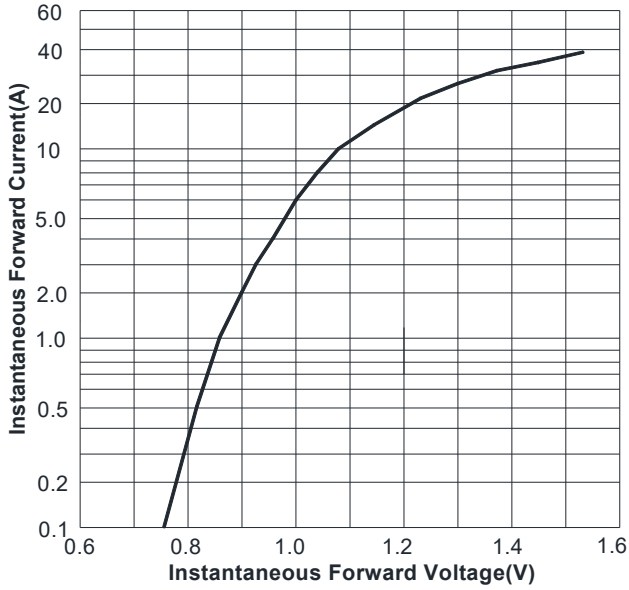
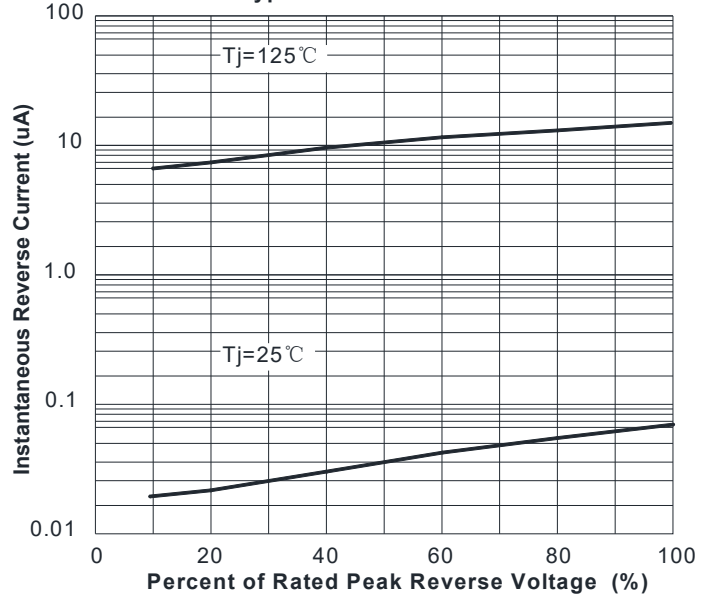
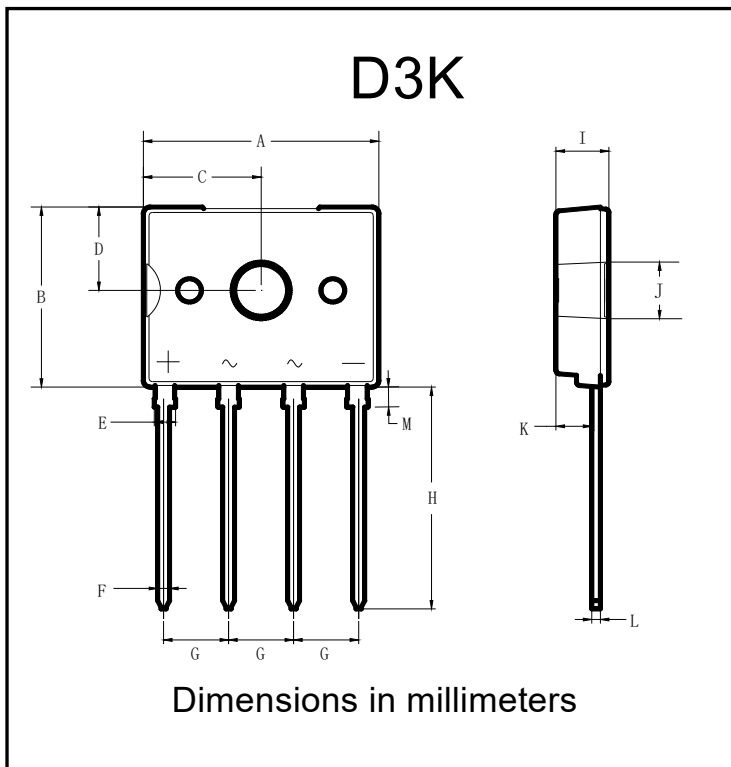


FIG4: Typical Reverse Characteristics



## ■ 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



## D3UB05A THRU D3UB100A

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