

■ **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	A^2s	41						
Storage temperature		T_{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						

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	D3UB05A	D3UB10A	D3UB20A	D3UB40A	D3UB60A	D3UB80A	D3UB100A
Maximum instantaneous forward voltage drop per diode	V _F	V	I _F M=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							
Typical junction capacitance	C _j	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C							34

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

PARAMETER		SYMBOL	UNIT	D3UB05A	D3UB10A	D3UB20A	D3UB40A	D3UB60A	D3UB80A	D3UB100A
Thermal resistance	Between junction and ambient, Without heatsink	R _{BJ-A}	°C/W							55.0
	Between junction and case, With heatsink	R _{BJ-C}								

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
D3UB05A -D3UB100A	B1	Approximate 1.265	25	1500	6000	TUBE

■ **CHARACTERISTICS (TYPICAL)**

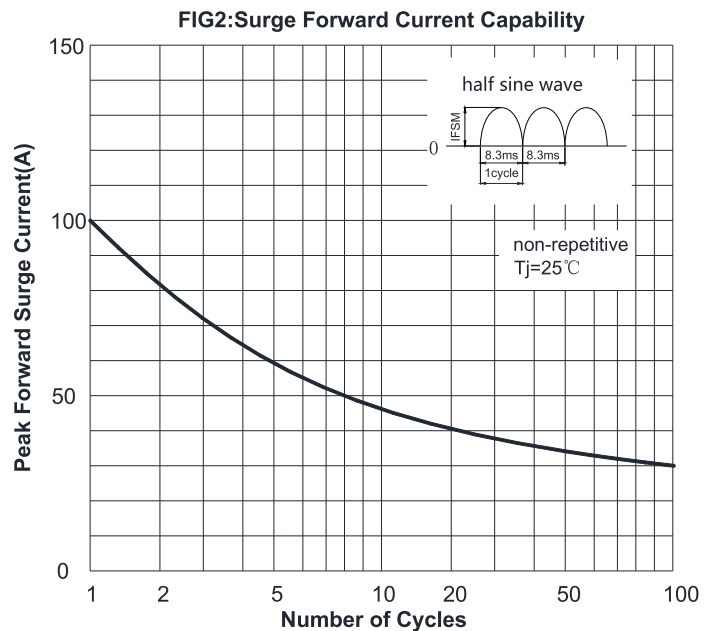
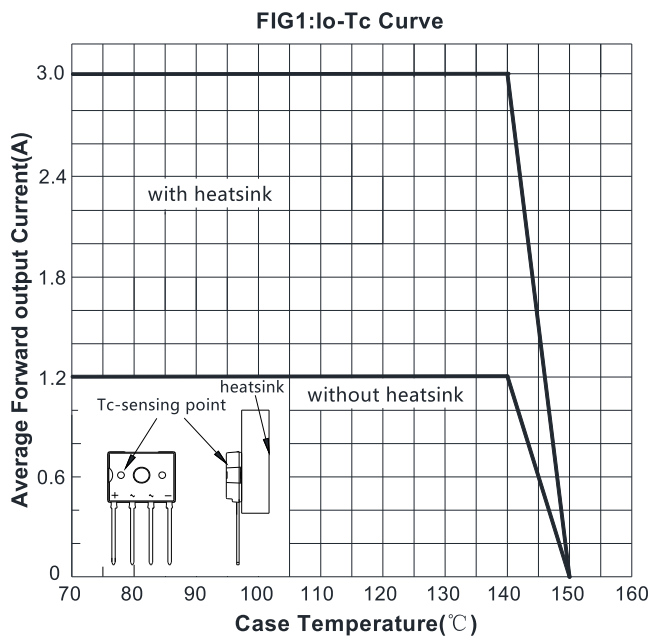


FIG3: Typical Forward Voltage

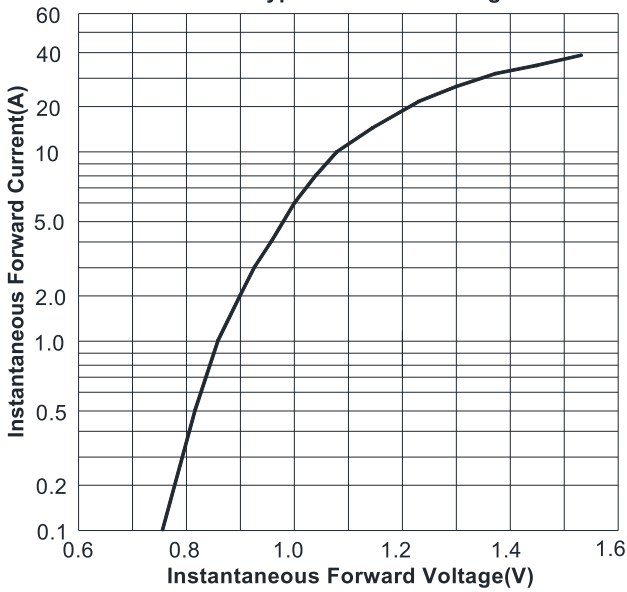
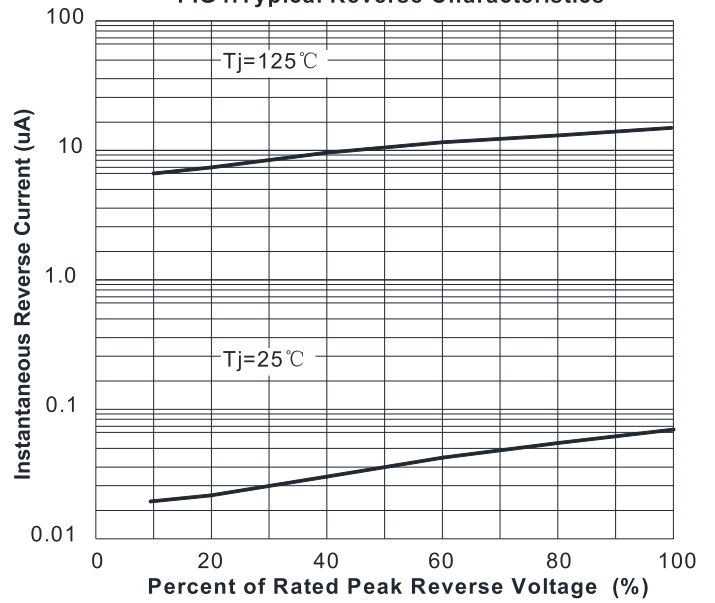
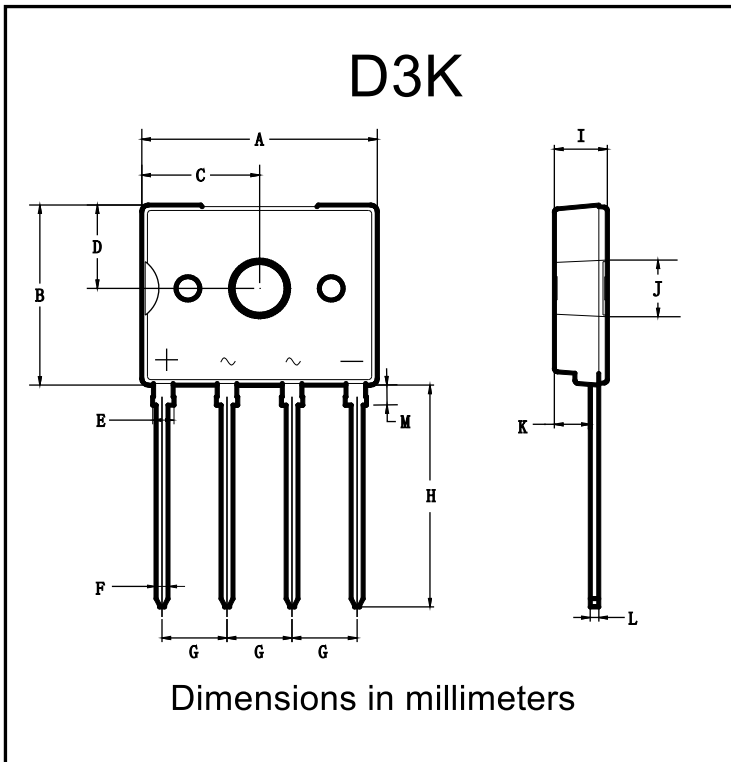


FIG4: Typical Reverse Characteristics



■ **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