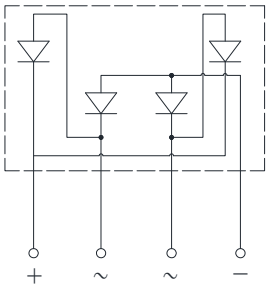
Bridge Rectifiers



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, -compliant
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

■Maximum Ratings (T_a=25℃ 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		V_{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS Voltage		V_{RMS}	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage		V_{DC}	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load	With heatsink T_C =138℃	I_O	A	4.0						
	Without heatsink T_a =25℃			1.3						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃		I_{FSM}	A	135						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃				250						
Current squared time @1ms≤t≤8.3ms Tj=25℃, Rating of per diode		I^2t	A^2s	62.5						
Storage temperature		T_{stg}	℃	-55 ~ +150						
Junction temperature		T_j	℃	-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℃ 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	μA	T_j=25℃	5						
			T_j=125℃	100						
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	40						

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER		SYMBOL	UNIT	D4UB05	D4UB10	D4UB20	D4UB40	D4UB60	D4UB80	D4UB100
Thermal resistance	Between junction and ambient, Without heatsink	$R_{\theta J-A}$	℃/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.

■Ordering Information (Example)

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

■ Characteristics (Typical)

FIG1:Io-Tc Curve

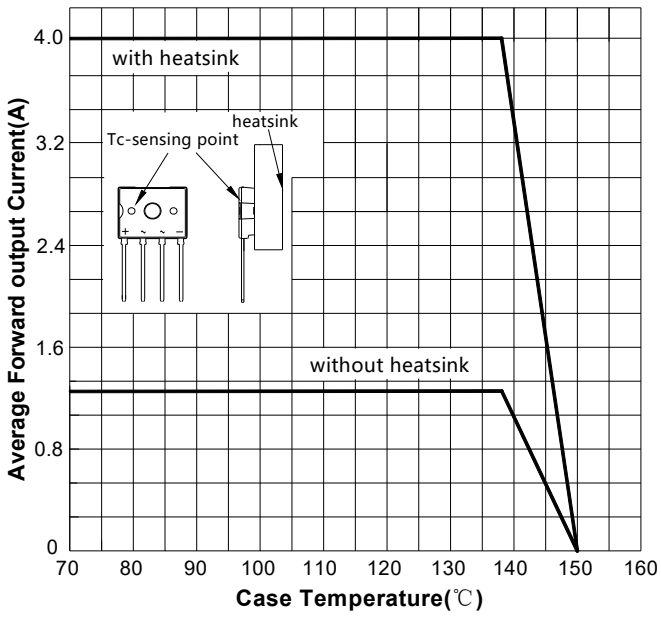
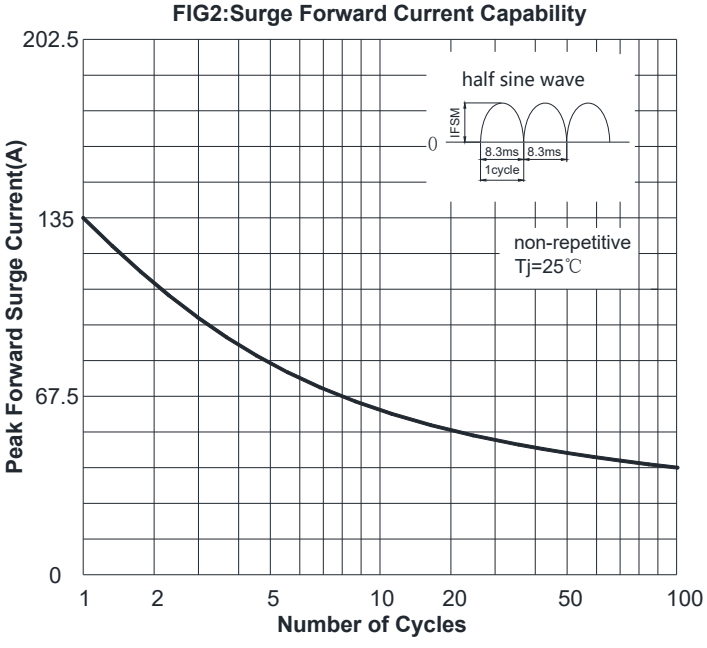
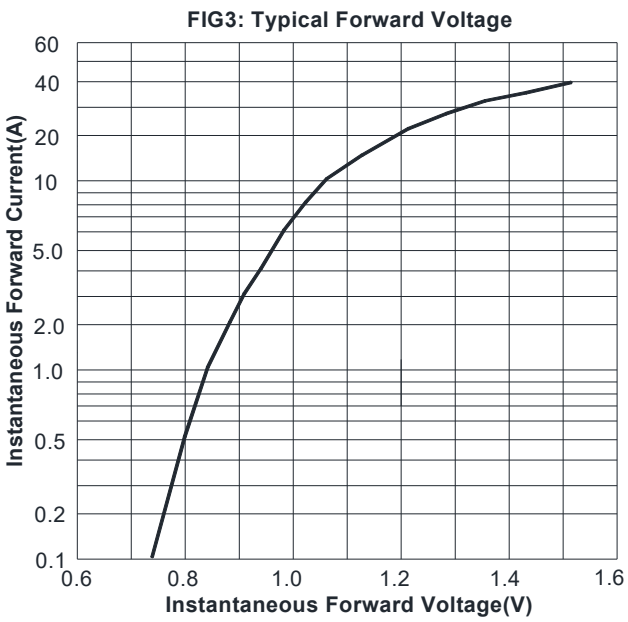
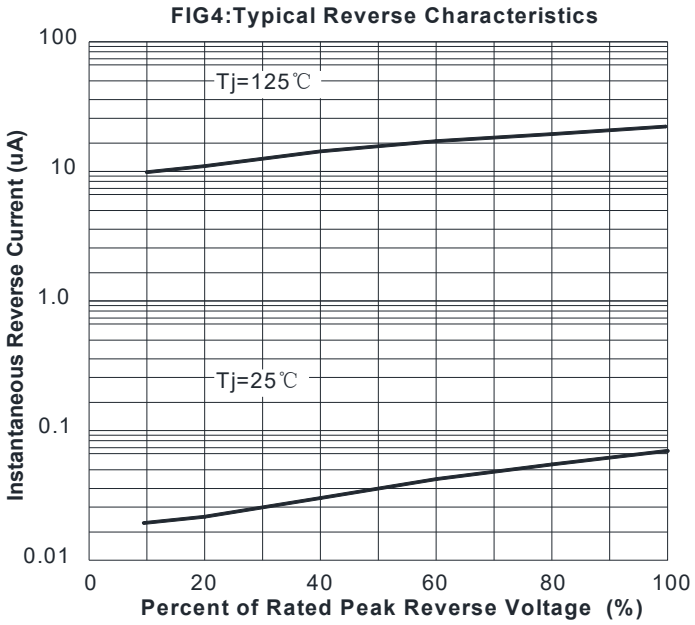


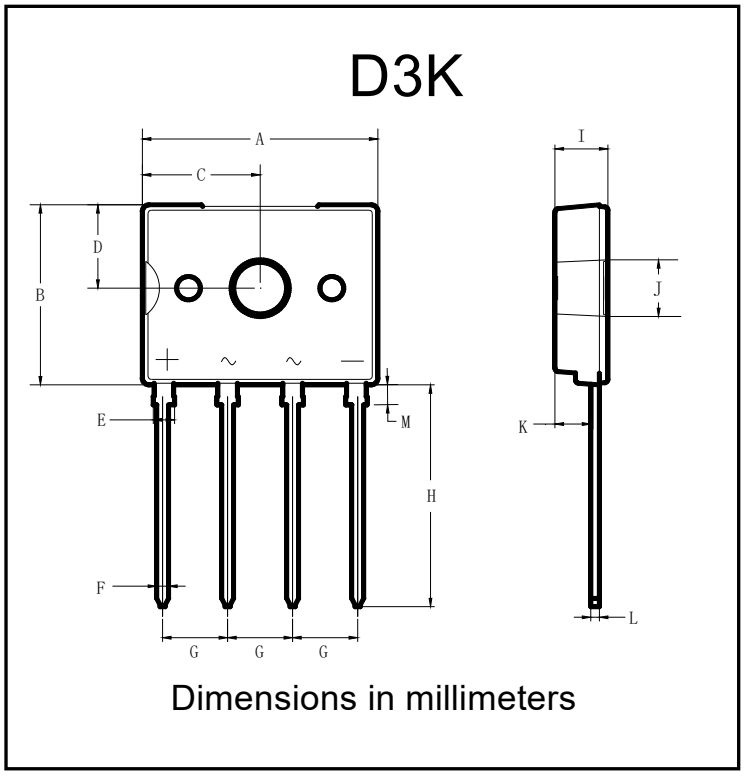
FIG2:Surge Forward Current Capability







■ 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

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