



3A, 600V - 1000V Standard Bridge Rectifier

FEATURES

- Ideal for printed circuit board
- High case dielectric strength
- High surge current capability
- UL Recognized File # E-326243
- RoHS Compliant
- Halogen-free according to IEC 61249-2-21

APPLICATIONS

- Switching mode power supply
- Adapters
- Lighting application

MECHANICAL DATA

• Case: D3K

Molding compound meets UL 94V-0 flammability rating

• Terminal: Matte tin plated leads, solderable per J-STD-002

Meet JESD 201 class 1A whisker test
Mounting torque: 0.80 N·m maximum

Polarity: As marked

• Weight: 1.24g (approximately)

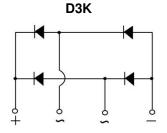
KEY PARAMETERS					
PARAMETER	VALUE	UNIT			
I _F	3	Α			
V_{RRM}	600 - 1000	V			
I _{FSM}	90	Α			
T_{JMAX}	150	°C			
Package	D3K				
Configuration	Quad				











ABSOLUTE MAXIMUM RATINGS (T _A = 25°C unless otherwise noted)						
PARAMETER		SYMBOL	UR3KB60	UR3KB80	UR3KB100	UNIT
Marking code on the device			UR3KB60	UR3KB80	UR3KB100	
Repetitive peak reverse voltage		V_{RRM}	600	800	1000	V
Reverse voltage, total rms value		$V_{R(RMS)}$	420	560	700	V
Forward current	Without heat sink, $T_A = 29^{\circ}C$	_	1.2		Α	
	With heat sink, T _C = 140°C	- I _F	3.0			Α
Surge peak forward current, 8.3ms single half sine-wave superimposed on rated load		I _{FSM}	90		Α	
Rating for fusing (t<8.3ms)		l ² t	33.61		A ² s	
Junction temperature		TJ	- 55 to +150		°C	
Storage temperature		T _{STG}	- 55 to +150			°C



THERMAL PERFORMANCE					
PARAMETER	SYMBOL	TYP	UNIT		
Junction-to-lead thermal resistance	R _{eJL}	5.5	°C/W		
Junction-to-ambient thermal resistance	$R_{\Theta JA}$	13.7	°C/W		
Junction-to-case thermal resistance	R _{eJC}	5.2	°C/W		

ELECTRICAL SPECIFICATIONS (T _A = 25°C unless otherwise noted)					
PARAMETER	CONDITIONS	SYMBOL	TYP	MAX	UNIT
Forward voltage per diode ⁽¹⁾	I _F = 1.5A,T _J = 25°C	V_{F}	-	1	V
Reverse current @ rated V _R per diode ⁽²⁾	T _J = 25°C	I _R	-	10	μΑ

Notes:

- 1. Pulse test with PW = 0.3ms
- 2. Pulse test with PW = 30ms

ORDERING INFORMATION					
ORDERING CODE ⁽¹⁾	PACKAGE	PACKING			
UR3KBx	D3K	25 / Tube			

Notes:

1. "x" defines voltage from 600V(UR3KB60) to 1000V(UR3KB100)



CHARACTERISTICS CURVES

 $(T_A = 25^{\circ}C \text{ unless otherwise noted})$

Fig.1 Forward Current Derating Curve

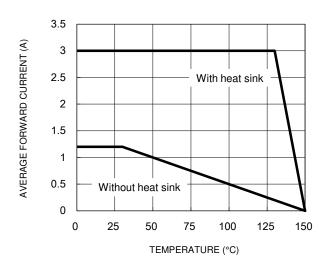


Fig.3 Typical Reverse Characteristics

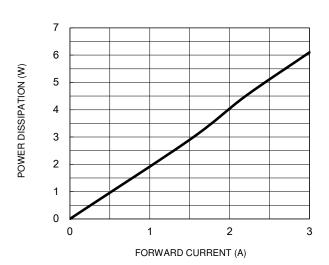
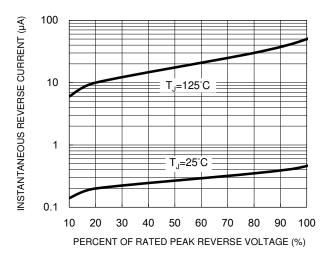


Fig.2 Forward Power Dissipation

Fig.4 Typical Forward Characteristics



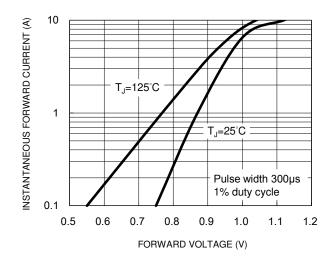
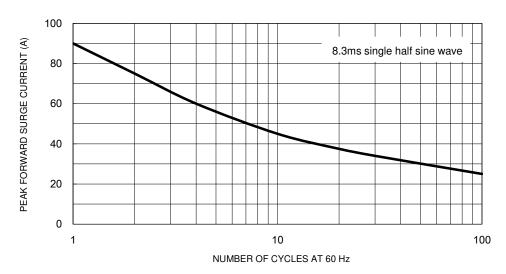


Fig.5 Maximum Non-Repetitive Forward Surge Current

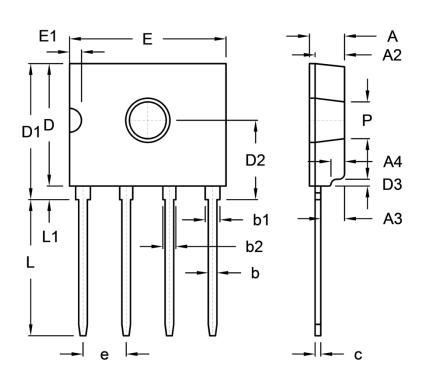






PACKAGE OUTLINE DIMENSIONS

D3K



DIM	Unit (mm)		Unit ((inch)
DIM.	Min.	Max.	Min.	Max.
Α	2.90	3.30	0.114	0.130
A2	2.40	2.80	0.094	0.110
A3	1.80	2.40	0.071	0.094
A4	1.00	1.40	0.039	0.055
b	0.66	0.86	0.026	0.034
b1	1.10	1.50	0.043	0.059
b2	1.05	1.25	0.041	0.049
С	0.40	0.60	0.016	0.024
D	10.50	11.10	0.413	0.437
D1	11.70	12.30	0.461	0.484
D2	6.70	7.30	0.264	0.287
D3	0.40	0.80	0.016	0.031
E	13.50	14.10	0.531	0.555
E1	0.70	1.40	0.028	0.055
е	3.51	4.11	0.138	0.162
L	11.70	12.30	0.461	0.484
L1	1.10	1.40	0.043	0.055
Р	3.10	3.40	0.122	0.134

MARKING DIAGRAM



P/N = Marking Code

G = Green Compound

YWW = Date Code F = Factory Code



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