

Features

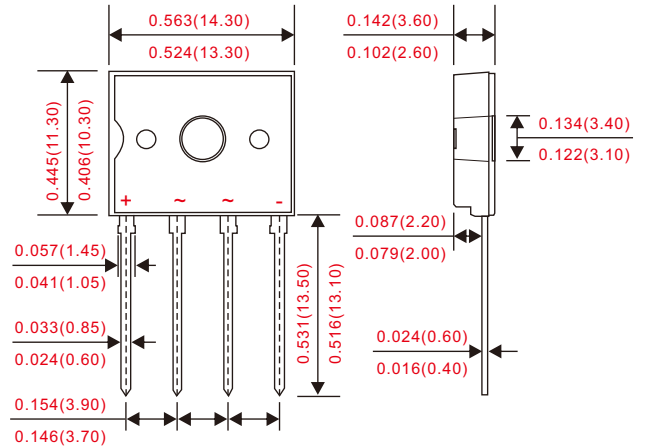
- Recommended for non-automatic applications.
- Ideal for & save space on printed circuit board.
- Applicable for automatic insertion.
- Reliable low cost construction utilizing molded plastic technology results in inexpensive product.
- Glass passivated chip junctions.
- Suffix "G" indicates Halogen-free part, ex. D3K3005G.
- Lead free in compliance with EU RoHS.

Mechanical data

- Epoxy: UL94-V0 rated flame retardant
- Case : Molded plastic, D3K
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : marked on body

Outline

D3K



Dimensions in inches and (millimeters)

Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	with heatsink $T_c = 140^\circ\text{C}$	I_o			3.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}			90	A
Reverse current	$V_R = V_{RRM}$, $T_A = 25^\circ\text{C}$	I_R			10	uA
	$V_R = V_{RRM}$, $T_A = 125^\circ\text{C}$				500	
Current squared time	$t < 8.3\text{ms}$, $T_j = 25^\circ\text{C}$	I^2t			35	A^2S
Thermal resistance	junction to ambient	R_{BJA}			55	$^\circ\text{C/W}$
Storage temperature		T_{STG}	-55		+150	$^\circ\text{C}$

Symbol	Max. repetitive peak reverse voltage V_{RRM} (V)	Max. RMS voltage V_{RMS} (V)	Max. DC blocking voltage V_R (V)	Max. forward voltage @ 1.5A, $T_A = 25^\circ\text{C}$ V_F (V)	Operating temperature T_j ($^\circ\text{C}$)
D3K3005	50	35	50	1.05	-55 ~ +150
D3K301	100	70	100		
D3K302	200	140	200		
D3K304	400	280	400		
D3K306	600	420	600		
D3K308	800	560	800		
D3K310	1000	700	1000		

■ Rating and characteristic curves

FIG.1-OUTPUT RECTIFIED CURRENT DERATING CURVE

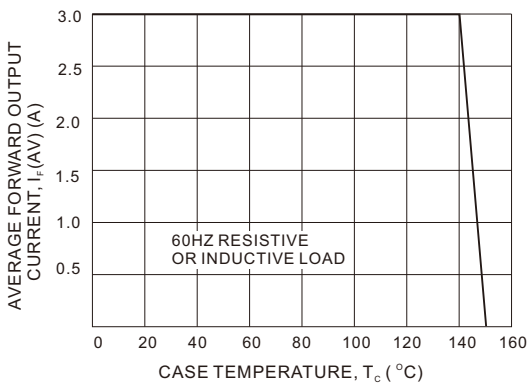


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

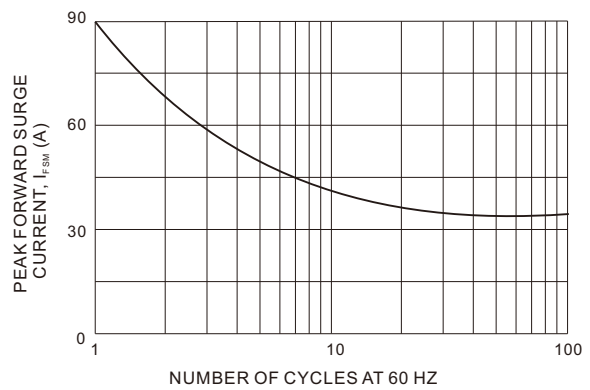


Fig. 3 - Typical Instantaneous Forward Characteristics (Per Leg)

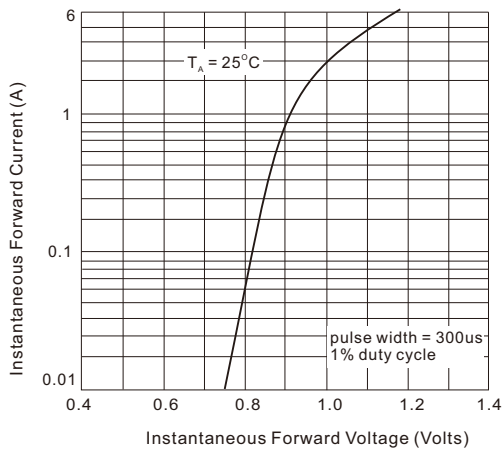
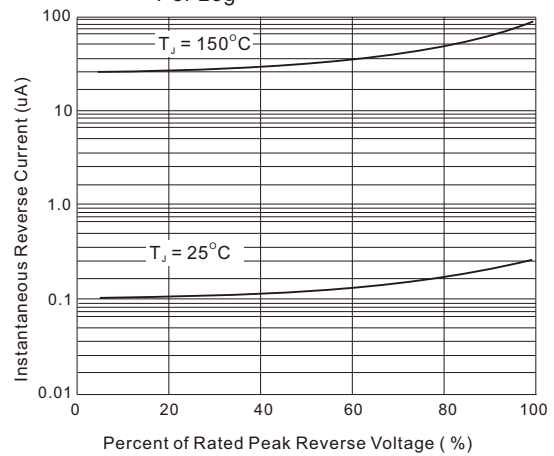
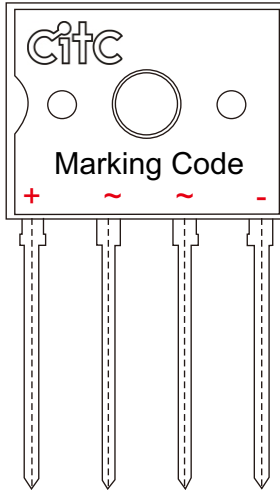



Fig. 4 - Typical Reverse Characteristics Per Leg



■ Marking Information



 : CITC Logo

	Part number	Marking Code
Halogen	D3K3005	D3UB05
	D3K301	D3UB10
	D3K302	D3UB20
	D3K304	D3UB40
	D3K306	D3UB60
	D3K308	D3UB80
	D3K3010	D3UB100
Halogen free	D3K3005G	D3UB05H
	D3K301G	D3UB10H
	D3K302G	D3UB20H
	D3K304G	D3UB40H
	D3K306G	D3UB60H
	D3K308G	D3UB80H
	D3K3010G	D3UB100H

■ Ordering/Packing information

Part number		Case	Q'TY/Reel (PCS)	Q'TY/Box (PCS)	Q'TY/Carton (PCS)
Halogen	D3K3005	D3K	10,000	20,000	160,000
Halogen free	D3K3005G				

Notes : 1. For packaging details please reference our website at <http://www.citcorp.com.tw/tchinese/products/index.php>

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