

Preliminary
BUGC30DH THRU BUGC30KH
● FEATURES

- * Halogen-free type
- * Compliance to RoHS product
- * GPRC (Glass passivated rectifier chip) inside
- * Lead less chip form, no lead damage
- * For surface mounted applications
- * Low power loss, High efficiency
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0

● APPLICATION

- * General purpose rectification
- * Surge absorption

● MECHANICAL DATA

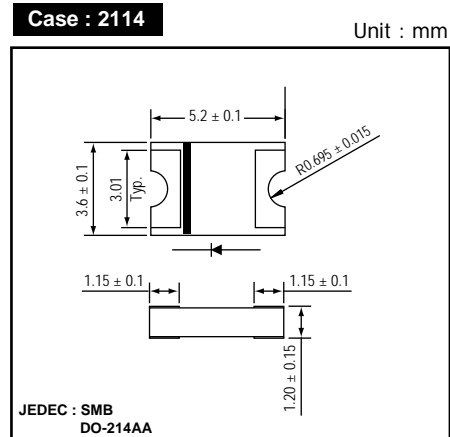
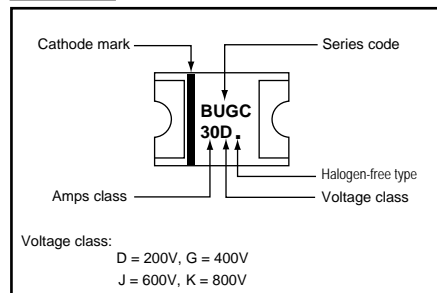
Case : Packed with FRP substrate and epoxy underfilled

Terminals : Pure Tin plated (Lead-Free), solderable per MIL-STD-750, Method 2026.

Polarity : Cathode Band, Laser marking

● PACKING

- * **5,000 pieces per 13"** (330mm ± 2mm) reel
- * **2 reels per box**
- * **5 boxes per carton**

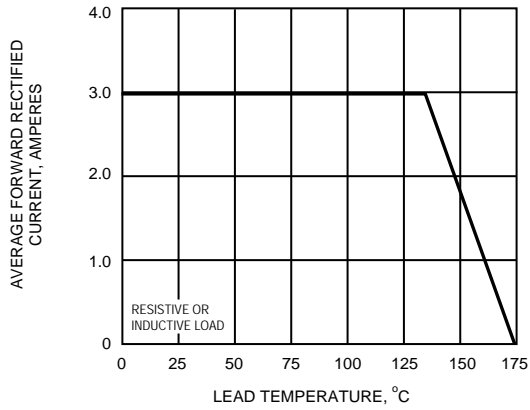
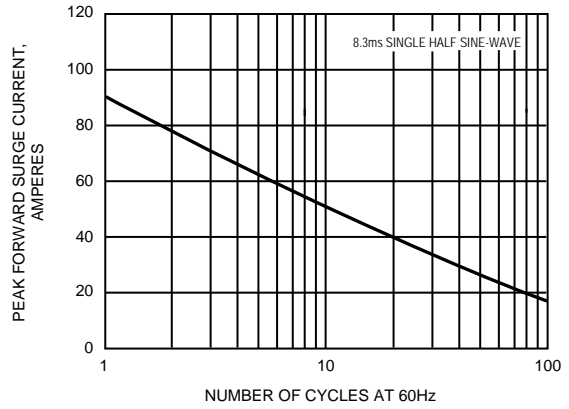
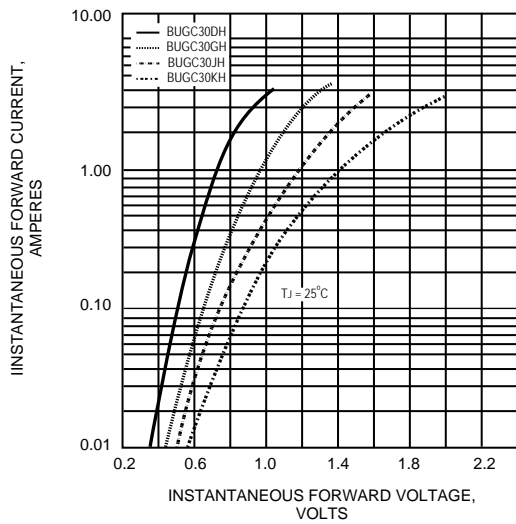
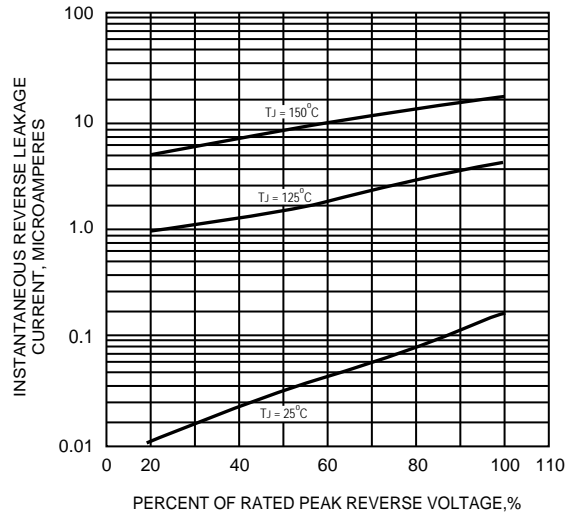
● OUTLINE DIMENSIONS

● MARKING

Absolute Maximum Ratings (Ta = 25 °C)

ITEM	Symbol	Conditions	BUGC				Unit
			30DH	30GH	30JH	30KH	
Repetitive peak reverse voltage	V _{RRM}		200	400	600	800	V
Average forward current	I _{F(AV)}		3.0				A
Peak forward surge current	I _{FSM}	8.3ms single half sine-wave	90				A
Reverse recovery time	T _{rr}	I _F = 0.5A, I _R = 1.0A, I _{rr} = 0.25A	35				nS
Operating storage temperature Range	T _J , T _{STG}		-65 to +175				°C

Electrical characteristics

ITEM	Symbol	Conditions	Type	Min.	Typ.	Max.	Unit
Forward voltage	V _F	I _F = 3.0A	BUGC30DH	-	0.93	0.95	V
			BUGC30GH	-	1.20	1.25	
			BUGC30JH	-	1.50	1.70	
			BUGC30KH	-	1.90	2.20	
Repetitive peak reverse current	I _{RRM}	V _R = Max. V _{RRM} , Ta = 25 °C		-	-	5	uA
Junction capacitance	C _j	V _R = 4V, f = 1.0 MHz		-	19	-	pF
Thermal resistance	R _{th(JA)}	Junction to ambient (NOTE)		-	66	-	°C/W
	R _{th(JL)}	Junction to lead (NOTE)		-	8	-	

NOTES : Thermal resistance from junction to ambient and from junction to lead P.C.B. mounted on 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas.

FIG.1 - FORWARD CURRENT DERATING CURVE

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

FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

FIG.4 - TYPICAL REVERSE CHARACTERISTICS

FIG.5 - TYPICAL JUNCTION CAPACITANCE
