



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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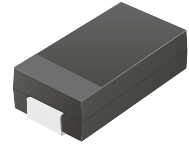
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CGRB301-G Thru. CGRB307-G

Glass Passivated Type
Reverse Voltage: 50 to 1000 Volts
Forward Current: 3.0 Amp
RoHS Device

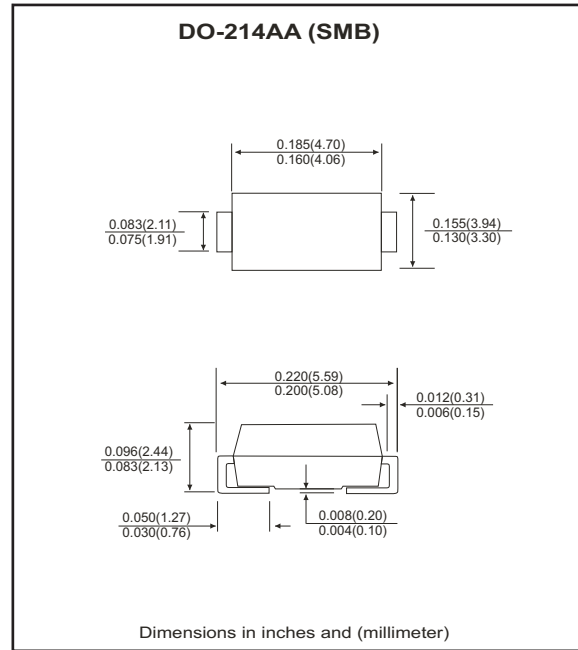


Features

- Ideal for surface mount applications.
- Easy pick and place.
- Plastic package has Underwriters Lab. flammability classification 94V-0.
- Built in strain relief.
- High surge current capability.

Mechanical data

- Case: JEDEC DO-214AA, molded plastic.
- Terminals: solderable per MIL-STD-750, method 2026.
- Polarity: Color band denotes cathode end.
- Approx. weight: 0.093 grams



Maximum Ratings and Electrical Characteristics

Parameter	Symbol	CGRB 301-G	CGRB 302-G	CGRB 303-G	CGRB 304-G	CGRB 305-G	CGRB 306-G	CGRB 307-G	Units
Max. repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Max. DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Max. RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Peak surge forward current, 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	100							A
Max. average forward current	I_o	3.0							A
Max. instantaneous forward voltage at 3.0A	V_F	1.1							V
Max. DC reverse current at $T_A=25\text{ }^\circ\text{C}$ rated DC blocking voltage $T_A=125\text{ }^\circ\text{C}$	I_R	5.0 150							μA
Max. thermal resistance (Note 1)	$R_{\theta JA}$	50							$^\circ\text{C/W}$
Max. operating junction temperature	T_J	150							$^\circ\text{C}$
Storage temperature	T_{STG}	-55 to +150							$^\circ\text{C}$

Notes: 1. Thermal resistance from junction to terminal mounted on P.C.B. with 5.0x5.0 mm square²(0.13mm thick) land area.

RATING AND CHARACTERISTIC CURVES (CGRB301-G thru CGRB307-G)

Fig.1 Reverse Characteristics

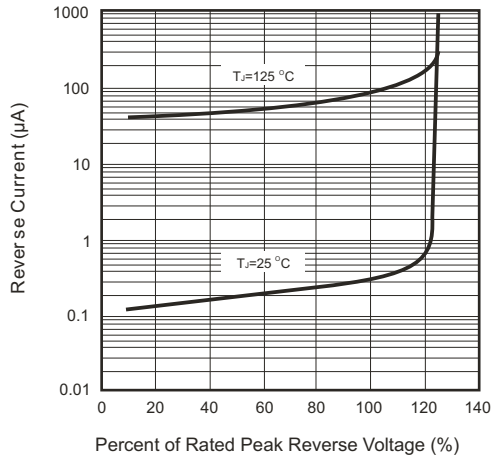


Fig.2 Forward Characteristics

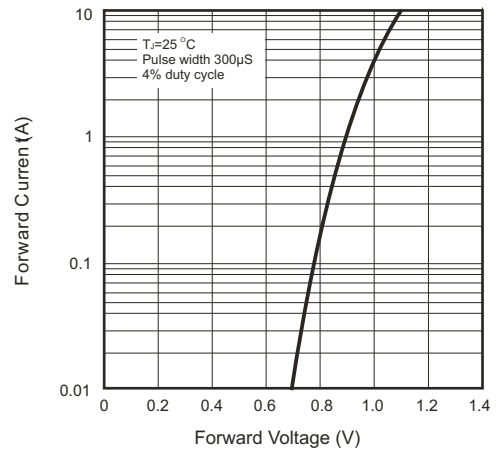


Fig.3 Junction Capacitance

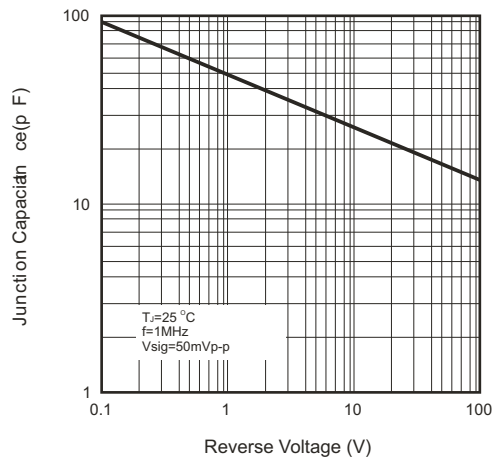


Fig.4 Current Derating Curve

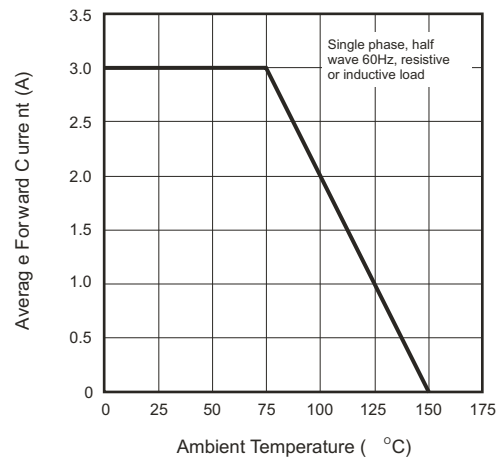
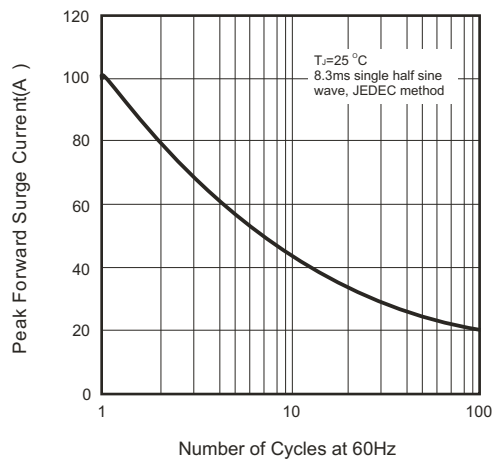
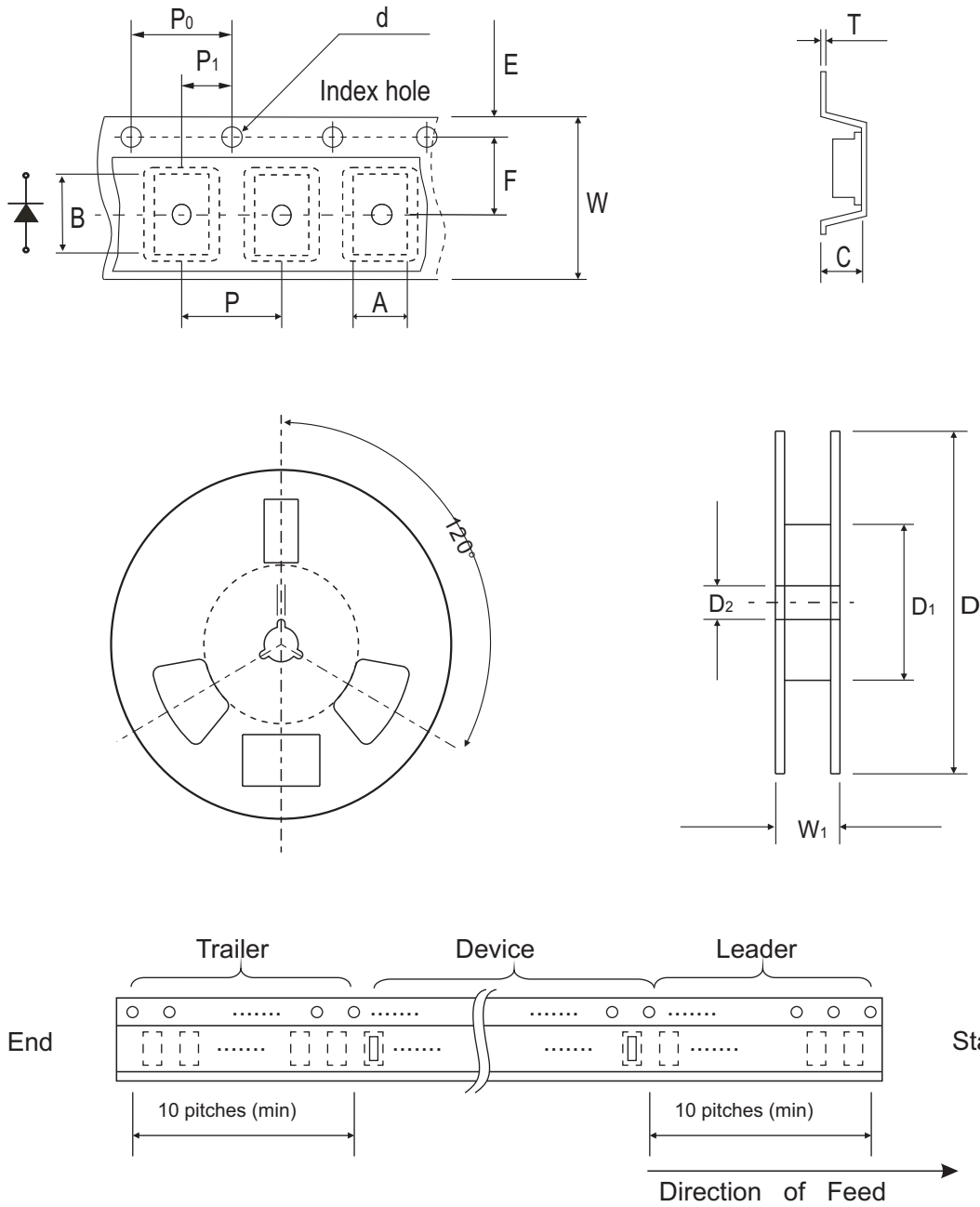


Fig.5 Non-repetitive Forward Surge Current



Reel Taping Specification

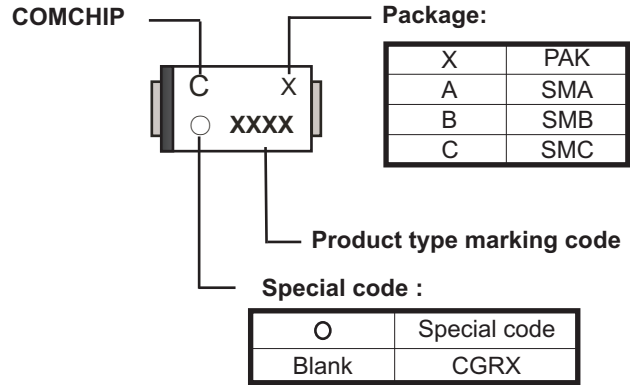


DO-214AA (SMB)	SYMBOL	A	B	C	d	D	D1	D2	E
	(mm)	4.00 MAX.	5.90 MAX.	3.00 MAX.	1.50 ± 0.10 _{DIA}	330 ± 2.00	50.0 MIN.	13.50 ± 1.0	1.75 ± 0.1
	(inch)	0.157 MAX.	0.232 MAX.	0.118 MAX.	0.059 ± 0.004 _{DIA}	12.99 ± 0.079	1.969 MIN.	0.531 ± 0.039	0.069 ± 0.004

DO-214AA (SMB)	SYMBOL	F	P	P0	P1	T	W	W1	W2
	(mm)	5.50 ± 0.05	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.60 MAX	12.0 ± 0.30	18.4 MAX.	14.4 MAX.
	(inch)	0.217 ± 0.002	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.236 ± 0.004	0.472 ± 0.012	0.724 MAX	0.566 MAX

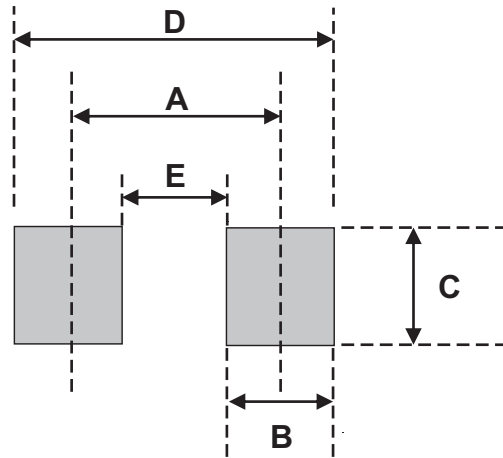
Marking Code

Part Number	Marking Code
CGRB301-G	301
CGRB302-G	302
CGRB303-G	303
CGRB304-G	304
CGRB305-G	305
CGRB306-G	306
CGRB307-G	307



Suggested PAD Layout

SIZE	SMB	
	(mm)	(inch)
A	4.30	0.169
B	2.50	0.098
C	2.30	0.091
D	6.80	0.268
E	1.80	0.071



Standard Packaging

Case Type	Qty Per Reel	Reel Size
	(Pcs)	(inch)
DO-214AA (SMB)	3,000	13