ZOWIE

Super Low VF Rectifier Diode

(200V~1000V / 3.0A)

GF30DL THRU GF30ML

VF < 0.91V @IF = 3A

IFSM = 140Amp

● FEATURES

* Compliance to RoHS product
* GPRC (glass passivated rectifier chip) inside
* Glass passivated cavity-free junction
* Ideal for surface mount automotive applications
* Plastic package has Underwriters Laboratory Flammability Classification 94V-0

● APPLICATION

* General purpose rectification of power supplies and inverters.
* Surge absorption.

● MECHANICAL DATA

Case : DO-214AA molded plastic
Terminals : Tin Plated, solderable per MIL-STD-750, Method 2026.
Polarity : Color band denotes cathode end
Weight : 0.12 gram

● PACKING

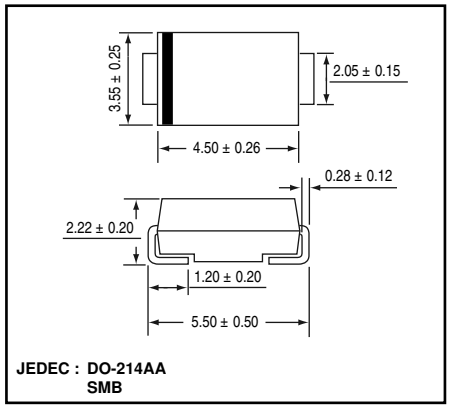
7" (178mm ± 2mm) reel :
* 850 pieces per reel
* 4 reels per box
* 6 boxes per carton

13" (330mm ± 2mm) reel :
* 3,000 pieces per reel
* 2 reels per box
* 5 boxes per carton

● OUTLINE DIMENSIONS

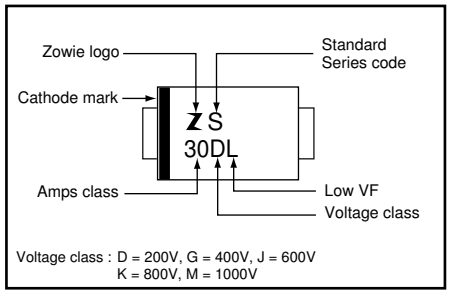
Case : DO-214AA

Unit : mm



JEDEC : DO-214AA
SMB

● MARKING



Voltage class : D = 200V, G = 400V, J = 600V
K = 800V, M = 1000V

Absolute Maximum Ratings (Ta = 25 °C)

ITEM	Symbol	Rating					Unit
		GF30DL	*GF30GL*	*GF30JL*	*GF30KL*	*GF30ML*	
Repetitive peak reverse voltage	V_{RRM}	200	400	600	800	1000	V
Average forward current	$I_{F(AV)}$	3.0					A
Peak forward surge current (8.3ms single half sine-wave)	I_{FSM}	140			125		A
Operating junction temperature Range	T_j	-65 to +175					°C
Storage temperature Range	T_{STG}	-65 to +175					°C

Electrical characteristics (Ta = 25 °C)

ITEM	Symbol	Conditions	Type	Min.	Typ.	Max.	Unit
Forward voltage	V_F	I_F = 3.0	*GF30DL* *GF20GL* *GF30JL*	-	0.88	0.91	V
			GF30KL *GF30ML*	-	0.89	0.92	
Repetitive peak reverse current	I_{RRM}	V_R = Max. V_{RRM} , Ta = 25 °C		-	0.08	5	uA
Junction capacitance	C_j	V_R = 4V, f = 1.0 MHz		-	40	-	pF
Thermal resistance	$R_{th(JA)}$	Junction to ambient *		-	47	-	°C/W
	$R_{th(JL)}$	Junction to lead *		-	13	-	°C/W

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

FIG.1 - FORWARD CURRENT DERATING CURVE

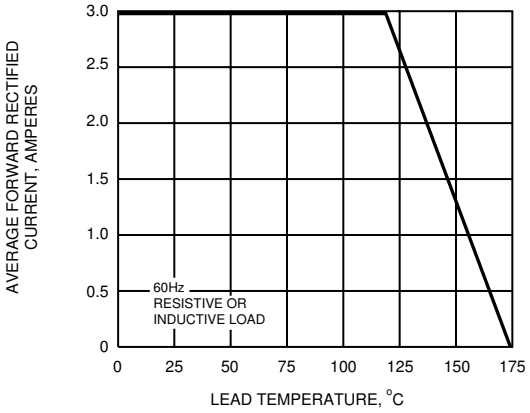


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

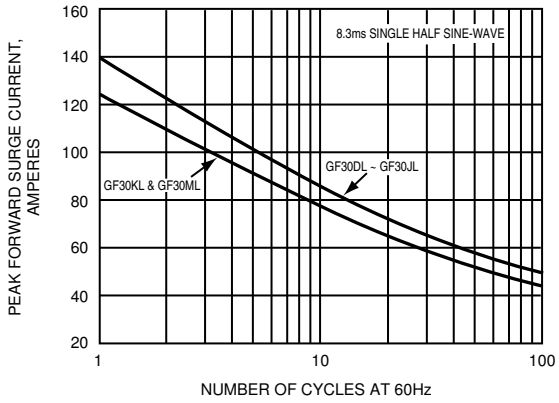


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

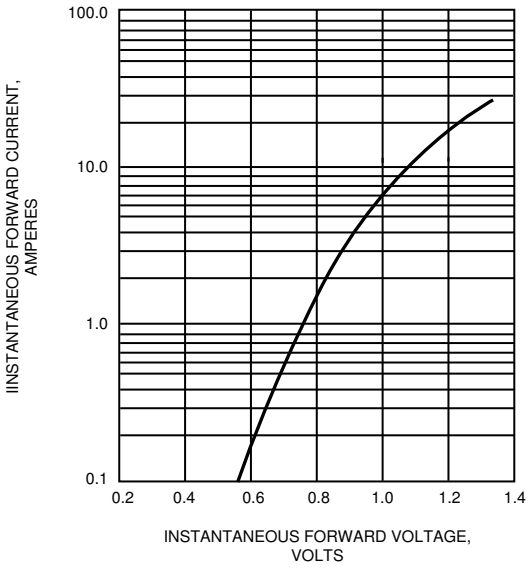


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

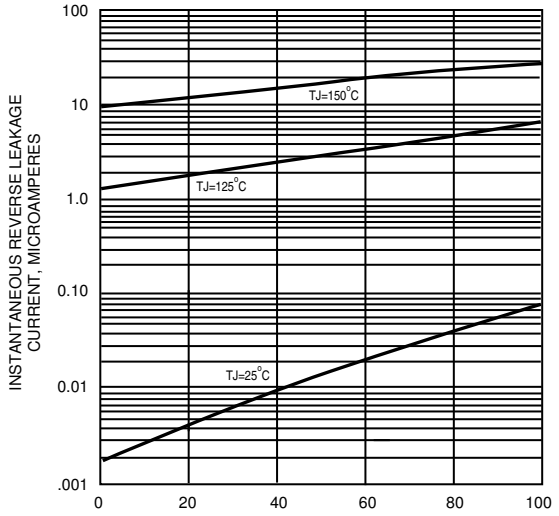
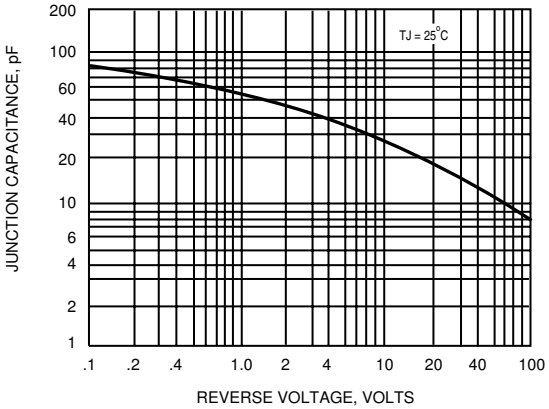



FIG.5 - TYPICAL JUNCTION CAPACITANCE