

GP30DL THRU GP30ML

Low VF Rectifier Diode

● FEATURES

- * GPRC (Glass passivated rectifier chip) inside
- * Glass passivated cavity-free junction
- * Compliance to RoHS product
- * Low forward voltage drop
- * 3.0 Ampere operation at $T_A=55^{\circ}\text{C}$ with no thermal runaway
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0

● APPLICATION

- * General purpose rectification
- * Surge absorption

● MECHANICAL DATA

Case : DO-201AD molded plastic

Terminals : Tin Plated, solderable per MIL-STD-750, Method 2026.

Polarity : Color band denotes cathode end

Weight : 1.12 grams

● PACKING

Bulk :

- * 500 pieces box
- * 24 boxes per (330x320x265mm) carton

Reel :

- * 1,250 pieces per reel
- * 4 reels per (340x340x330mm) carton

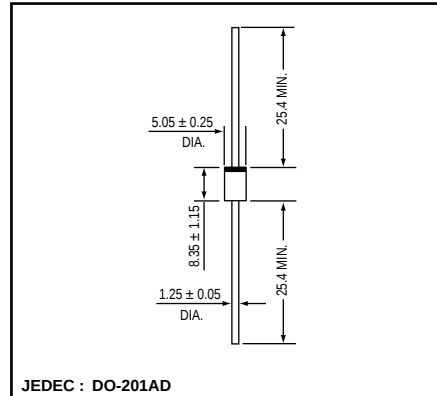
$$V_F < 0.90V @ I_F = 3A$$

$$I_{FSM} = 140A$$

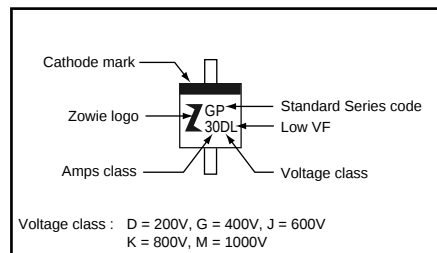
● OUTLINE DIMENSIONS

Case : DO-201AD

Unit : mm



● MARKING



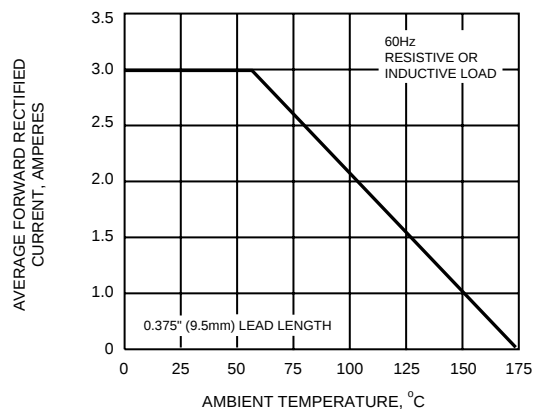
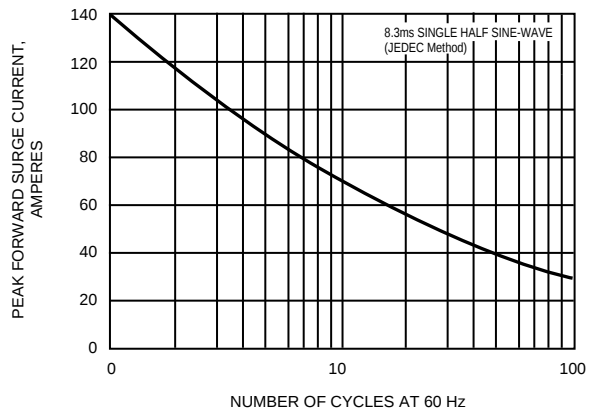
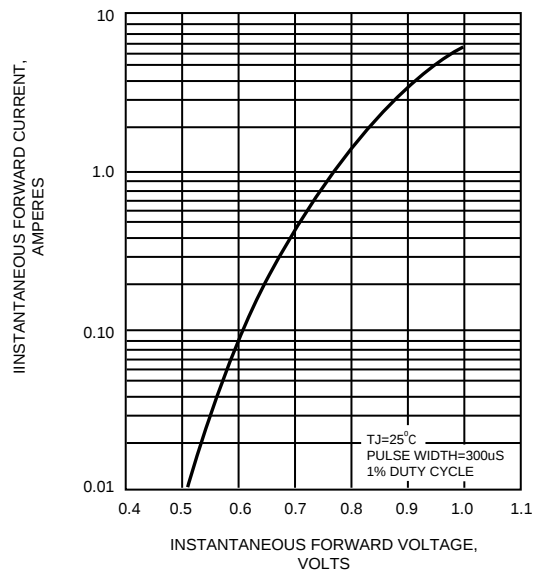
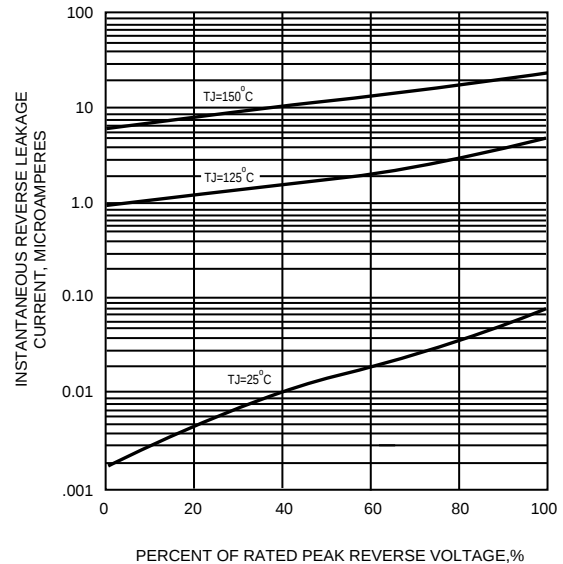
Absolute Maximum Ratings ($T_A = 25^{\circ}\text{C}$)

ITEM	Symbol	Rating					Unit
		GP30DL	GP30GL	GP30JL	GP30KL	GP30ML	
Repetitive peak reverse voltage	VRRM	200	400	600	800	1000	V
Average forward current	IF(AV)	3.0					A
Peak forward surge current (8.3ms single half sine-wave)	IFSM	140					
Operating junction temperature Range	Tj	-65 to +175					°C
Storage temperature Range	TSTG	-65 to +175					

Electrical characteristics ($T_A = 25^{\circ}\text{C}$)

ITEM	Symbol	Conditions	Type	Min.	Typ.	Max.	Unit
Forward voltage	VF	IF = 3.0A	GP30DL GP30GL GP30JL	-	0.87	0.90	V
			GP30KL GP30ML	-	0.90	0.92	
Repetitive peak reverse current	IRRM	VR = Max. VRRM, TA = 25 °C		-	0.08	5	uA
Junction capacitance	Cj	VR = 4V, f = 1.0 MHz		-	40	-	pF
Thermal resistance	Rth(JA)	Junction to ambient *		-	20	-	°C/W
	Rth(JL)	Junction to lead *		-	10	-	

* Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5 mm) lead lengths, P.C.B. mounted.

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
