GP30Y

Chip Integration Technology Corporation

3A Leaded Type General Purpose Rectifiers

■ Features

- I_o = 3A
- VRRM = 1600V
- Axial lead type devices for through hole design.
- High current capability.
- High surge capability.
- Glass passivated chip junction inside.
- Suffix "G" indicates Halogen-free part, ex.GP30YG.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

■ Application

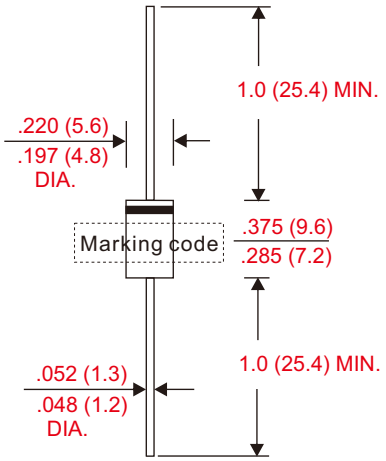
- Rectifier

■ Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, DO-201AD / DO-27
- Lead : Axial leads, solderable per MIL-STD-202, Method 208 guranteed
- Polarity : Color band denotes cathode end
- Weight : Approximated 1.10 gram

■ Outline

DO-27(DO-201AD)



Dimensions in inches and (millimeters)

■ Limiting Value (Absolute Maximum Rating)

Parameter	Conditions	Symbol	Value	UNIT
Repetitive peak reverse voltage		V_{RRM}	1600	V
Average forward current	60Hz half-sine wave, resistance load, T_a=75°C	$I_{F(AV)}$	3	A
Surge (non- repetitive) forward current	60Hz half-sine wave, 1 cycle, T_a=25°C	I_{FSM}	150	
Junction temperature		T_J	-55 ~ + 150	°C
Storage temperature		T_{STG}	-55 ~ + 150	

■ Electrical characteristics (Ta= 25°C unless otherwise specified.)

Parameter	Conditions	Symbol	Max. Value	UNIT
Peak forward voltage	I_{FM}=3A	V_{FM}	1.1	V
Peak reverse current	V_{RM}= V_{RRM}, T_a=25°C	I_{RRM1}	2.5	μA
	V_{RM}= V_{RRM}, T_a=125°C	I_{RRM2}	50	
Thermal resistance (Typical)	Between junction and ambient	$R_{\theta J-A}$	30	°C/W
Typical junction capacitance	Measured at 1MHz and applied reverse voltage of 4.0 V.D.C.	C_J	60	pF

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■ Rating and characteristic curves

FIG.1 FORWARD CURRENT DERATING CURVE

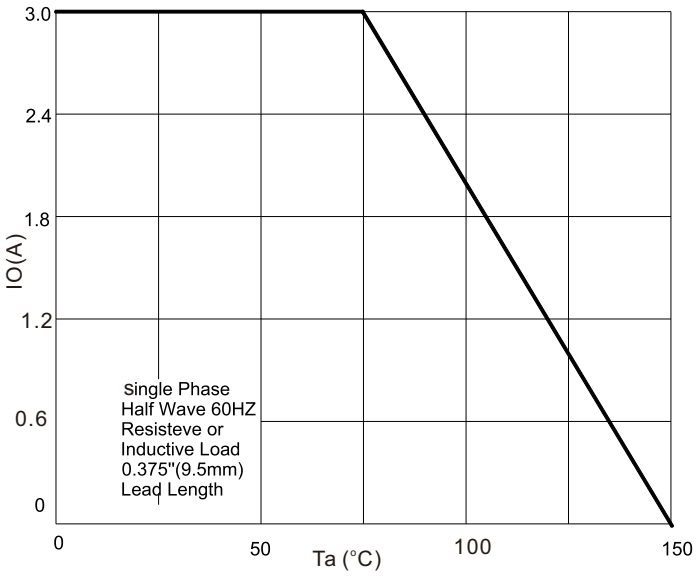


FIG.2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

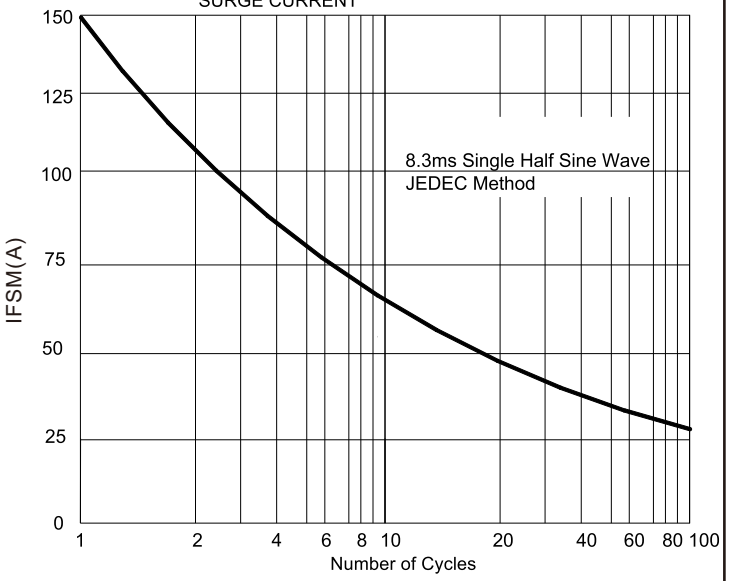


FIG.3 TYPICAL FORWARD CHARACTERISTICS

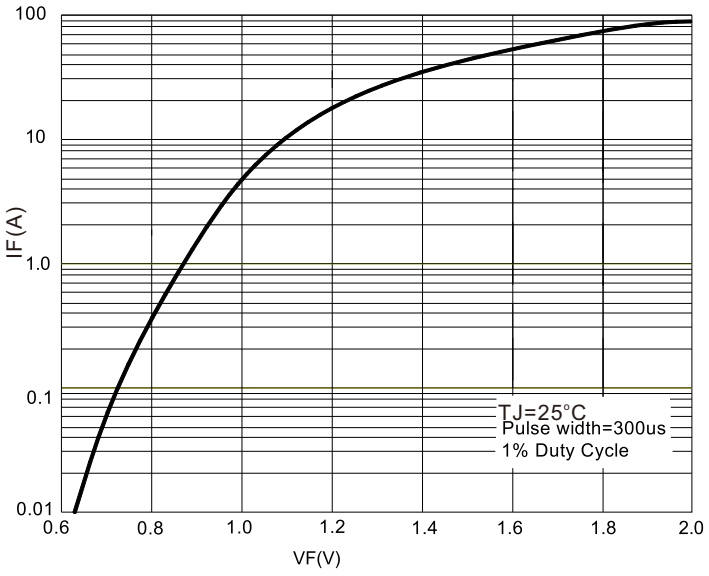
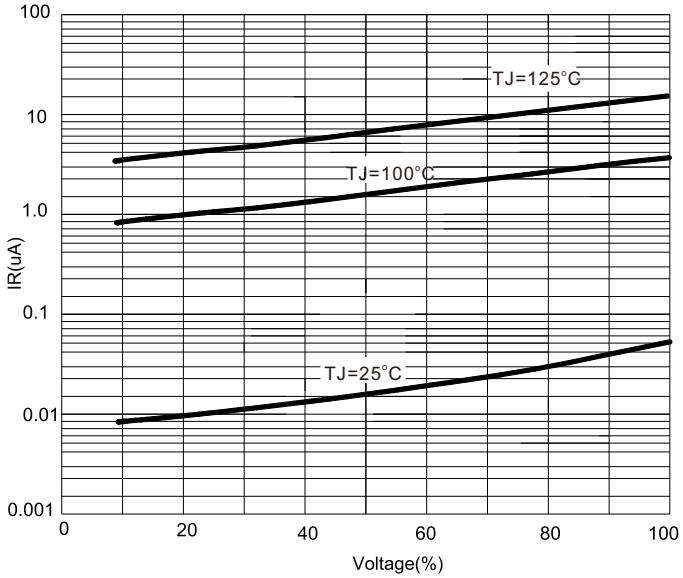


FIG.4 TYPICAL REVERSE CHARACTERISTICS



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http://www.citcorp.com.tw/ Tel:886-3-5600628 Fax:886-3-5600636
Add:Rm. 3, 2F., No.32, Taiyuan St., Zhubei City, Hsinchu County 302, Taiwan (R.O.C.)

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