1A1 THRU 1A7

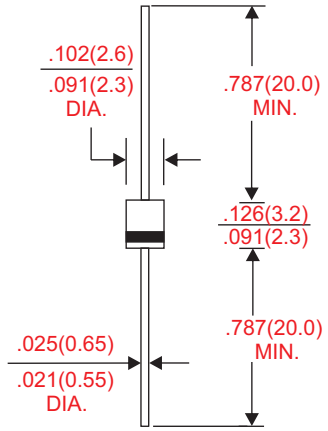
1 Amperes Leaded Type General Purpose Rectifiers
VOLTAGE : 50 TO 1000Volts

Features

- Axial lead type devices for through hole design.
- High current capability.
- High surge capability.
- Open junction chip inside.
- Suffix "G" indicates Halogen-free part, ex.1A1G.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

Outline

R-1



Dimensions in inches and (millimeters)

Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, R-1
- Terminals : Axial leads, solderable per MIL-STD-202, Method 208 guranteed
- Polarity : Color band denotes cathode end
- Weight : Approximated 0.19 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Parameter	Symbol	1A1	1A2	1A3	1A4	1A5	1A6	1A7	UNIT
Making code		1A1	1A2	1A3	1A4	1A5	1A6	1A7	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	
Maximum Instantaneous Forward Voltage@1.0A, T_A =25°C	V_F	1.1							V
Operating Temperature	T_J	-55 ~ +125							°C

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	See Fig.2	I_O			1.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}			30	A
Reverse current	V_R = V_{RRM} T_A = 25°C	I_R			5.0	uA
	V_R = V_{RRM} T_A = 125°C				500	
Thermal resistance	Junction to ambient	$R_{\theta JA}$		60		°C/W
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		15		pF
Maximum reverse recovery time	I_F = 0.5A, I_R = 1.0A , I_{RR} = 0.25A	T_{rr}			2500	nS
Storage temperature		T_{STG}	-55		+150	°C

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Rating and characteristic curves

FIG.1-TYPICAL FORWARD CHARACTERISTICS

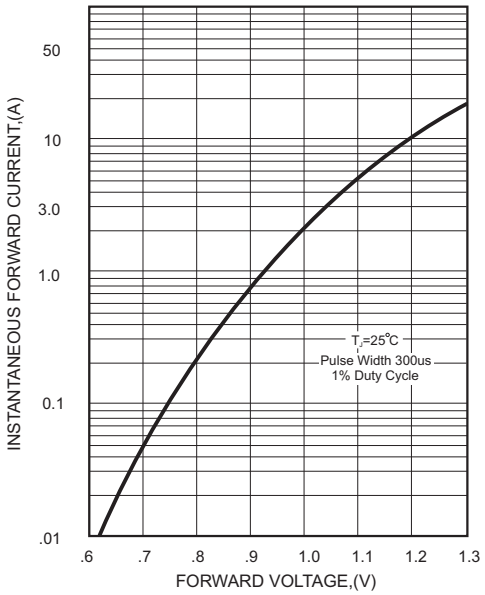

FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

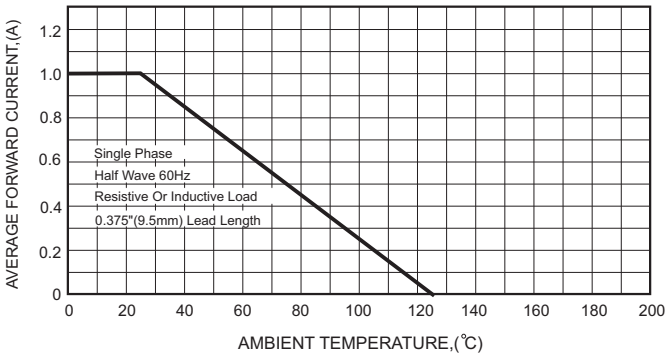

FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

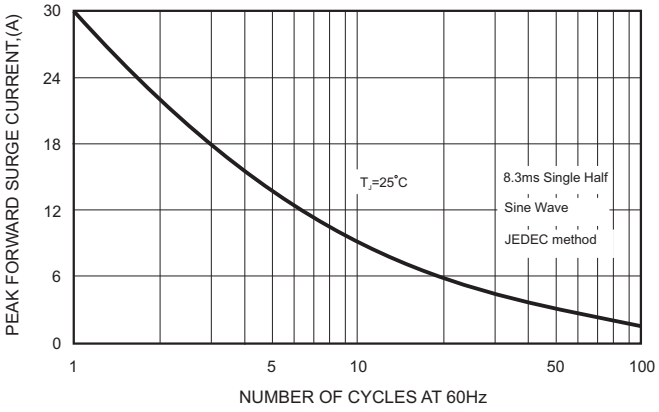

FIG.3 - TYPICAL REVERSE CHARACTERISTICS

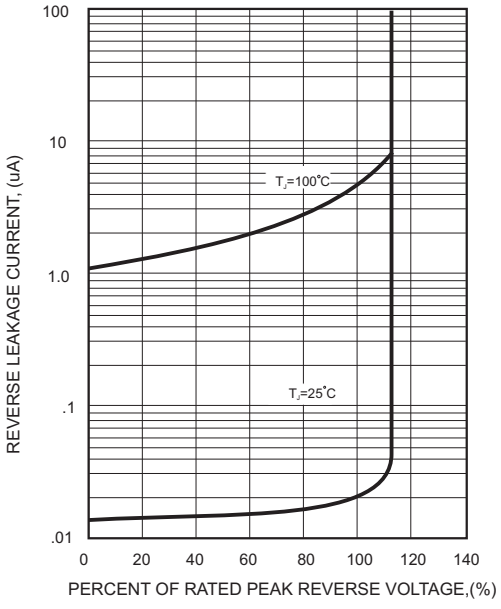

FIG.5-TYPICAL JUNCTION CAPACITANCE