

1A1 THRU 1A7

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

Features	Outline
<ul style="list-style-type: none"> • 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 	<p>R-1</p> <p style="text-align: center;">Dimensions in inches and (millimeters)</p>
Mechanical data	
<ul style="list-style-type: none"> • 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, $T_A = 25^\circ C$	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	$V_R = V_{RRM}$ $T_A = 25^\circ C$	I_R			5.0	uA
	$V_R = V_{RRM}$ $T_A = 125^\circ C$				500	
Thermal resistance	Junction to ambient	R_{BJA}		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

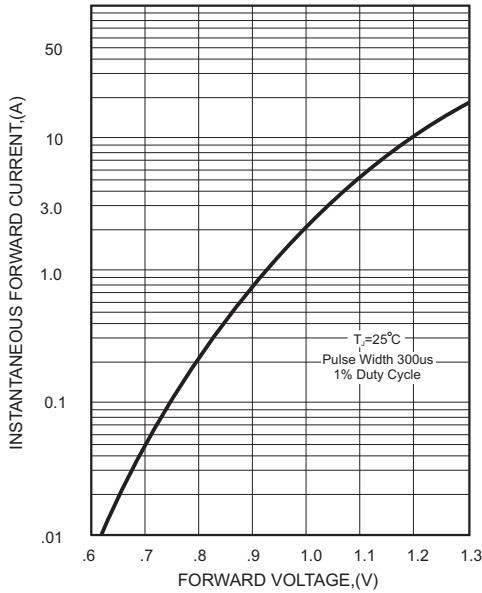


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

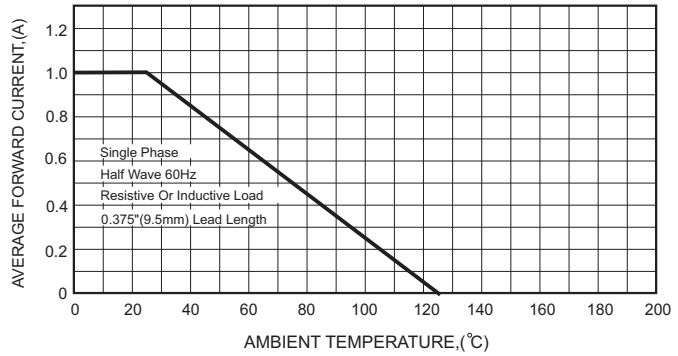


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

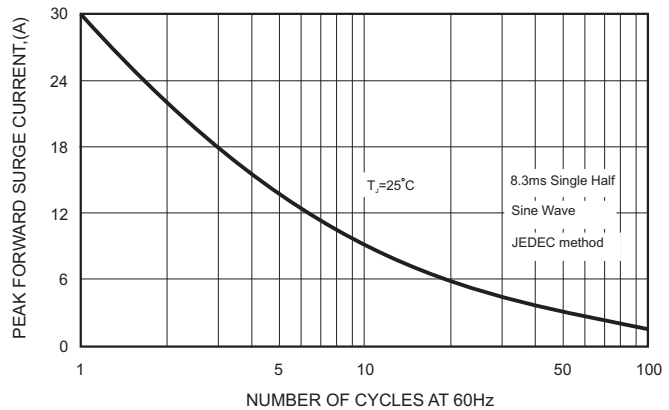


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

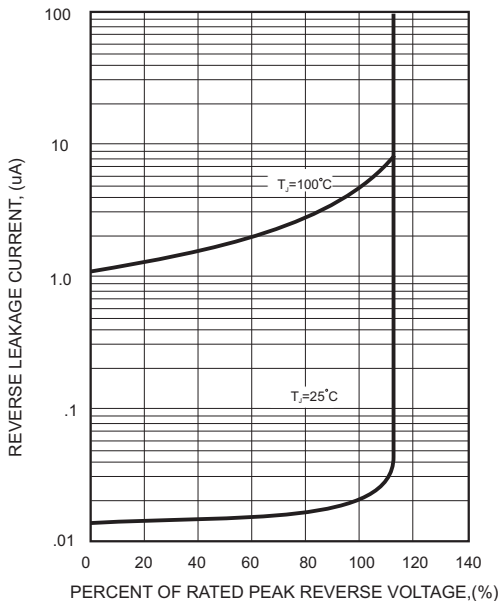


FIG.5-TYPICAL JUNCTION CAPACITANCE

