

# 1A1 THRU 1A7

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

Features	Outline
<ul style="list-style-type: none"> <li>• Axial lead type devices for through hole design.</li> <li>• High current capability.</li> <li>• High surge capability.</li> <li>• Open junction chip inside.</li> <li>• Suffix "G" indicates Halogen-free part, ex.1A1G.</li> <li>• Lead-free parts meet environmental standards of MIL-STD-19500 /228</li> </ul>	<p>R-1</p> <p style="text-align: center;">Dimensions in inches and (millimeters)</p>
Mechanical data	
<ul style="list-style-type: none"> <li>• Epoxy:UL94-V0 rated flame retardant</li> <li>• Case : Molded plastic, R-1</li> <li>• Terminals : Axial leads, solderable per MIL-STD-202, Method 208 guranteed</li> <li>• Polarity : Color band denotes cathode end</li> <li>• Weight : Approximated 0.19 gram</li> </ul>	

## 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

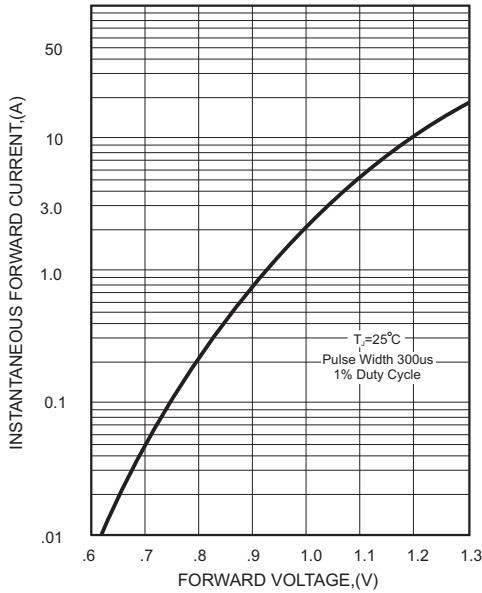


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

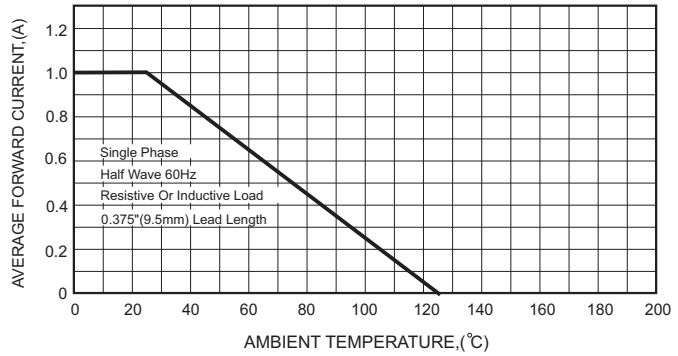


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

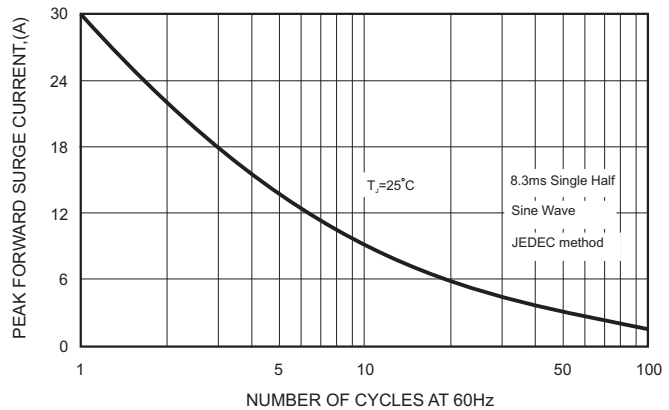


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

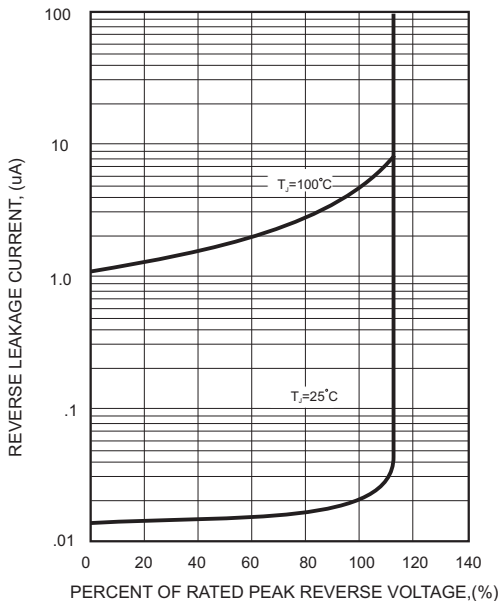


FIG.5-TYPICAL JUNCTION CAPACITANCE

