

2N6117
2N6118

Silicon Programmable Unijunction Transistor

Applications Include:

- SCR Trigger
- Pulse and Timing Circuits
- Oscillators
- Sensing Circuits
- Sweep Circuits

absolute maximum ratings: (25°C)

Voltage

- Gate-Cathode Forward Voltage +40 V
- Gate-Cathode Reverse Voltage - 5 V
- Gate-Anode Reverse Voltage +40 V
- Anode-Cathode Voltage ±40 V

Current

- DC Anode Current 200 mA
- Peak Anode, Recurrent Forward
(100 μsec pulse width, 1% duty cycle) 1 A
- (20 μsec pulse width, 1% duty cycle) 2 A
- Peak Anode, Non-recurrent Forward
(10 μsec) 5 A
- Gate Current ±20 mA

Power

- Total Average Power 250 mW

Temperature

- Operating Junction Temperature range, T_J -55 to +125 °C
- Storage temperature range, T_{STG} -65 to +200 °C

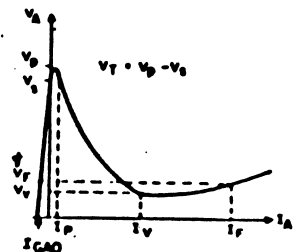
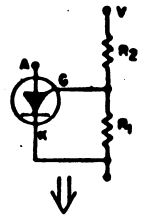
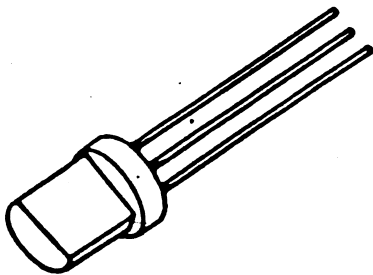
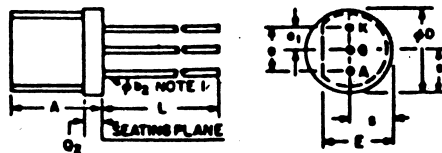
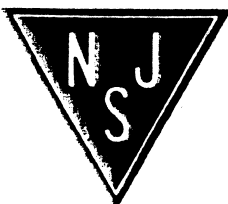


Figure 1



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	.170	.288	4.32	6.73
φb ₂	.018	.019	.468	.483
φD	.165	.208	4.19	5.21
E	.110	.158	2.79	3.94
e	.098	.105	2.41	2.67
φ1	.045	.088	1.14	1.40
L	.500		12.70	
φg		.078		1.90
s	.080	.118	2.03	2.92

NOTE 1: LEAD DIAMETER IS CONTROLLED IN THE ZONE BETWEEN .070 AND .250 FROM THE SEATING PLANE. BETWEEN .250 AND END OF LEAD A MAX. OF .021 IS WELD.



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electrical characteristics: (25°C) (unless otherwise specified)

	Fig. No.	2N6117		2N6118		
		Min.	Max.	Min.	Max.	
*Peak Current ($V_S = 10$ Volts) ($R_G = 1$ M Ω) ($R_G = 10k$)	I_P 1	-	0.3	-	0.15	μA
*Offset Voltage ($V_S = 10$ Volts) ($R_G = 1$ M Ω) ($R_G = 10k$)	V_T 1	-	2.0	-	1.0	μA
*Valley Current ($V_S = 10$ Volts) ($R_G = 1$ M Ω) ($R_G = 10k$)	I_V 1	0.2	0.6	0.2	0.6	Volts
*Anode Gate-Anode Leakage Current ($V_S = 40$ Volts, $T = 25^\circ C$) ($T = 75^\circ C$)	I_{GAO} 2	0.2	0.6	0.2	0.6	Volts
*Gate to Cathode Leakage Current ($V_S = 40$ Volts, Anode-Cathode short)	I_{GKS} 3	-	50	-	25	μA
*Forward Voltage ($I_F = 50$ mA)	V_F	50	-	50	-	μA
*Pulse Output Voltage	V_O 4	-	5	-	5	nA
*Pulse Voltage Rate of Rise	t_r 4	-	75	-	75	n
*JEDEC registered data		-	50	-	50	nA
		-	1.5	-	1.5	Volts
		6	-	6	-	Volts
		-	80	-	80	nsec

