

New Jersey Semi-Conductor Products, Inc.

20 STERN AVE.
SPRINGFIELD, NEW JERSEY 07081
U.S.A.

TELEPHONE: (973) 376-2922
(212) 227-6005
FAX: (973) 376-8960

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

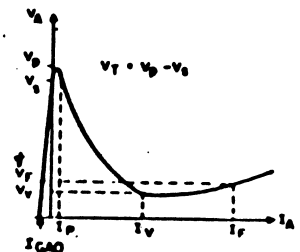
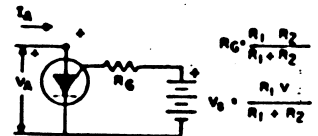
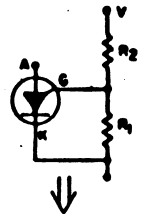
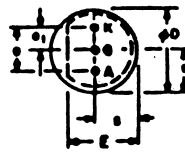
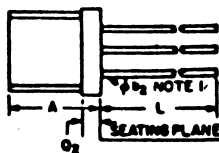
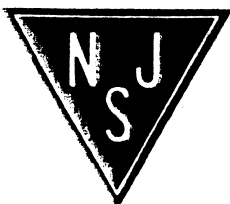
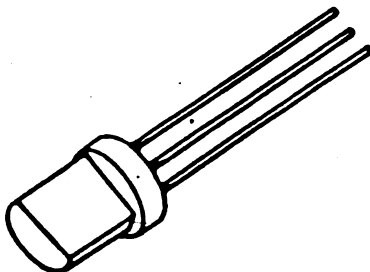


Figure 1



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	.170	.288	4.32	6.73
φb ₂	.016	.018	.406	.463
φD	.165	.208	4.19	5.21
E	.110	.158	2.79	3.94
φ	.098	.105	2.41	2.67
φ ₁	.045	.088	1.14	1.40
L	.900		12.70	
φ ₂		.078		1.90
φ	.060	.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.

NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

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

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

