61095 GENERAL PURPOSE PNP TRANSISTOR (2N2907A)	Mii OPTOELECTRONIC PRODUCTS DIVISION

Features:	Applications:
• TO-18 style package • Rugged package – able to withstand high acceleration load • Hermetically sealed • Mil-S-19500 screening available	• Analog switches • Digital switches • Signal Conditioning • Amplifiers

DESCRIPTION

The 2N2907A is a hermetically sealed metal can general purpose switching transistor.

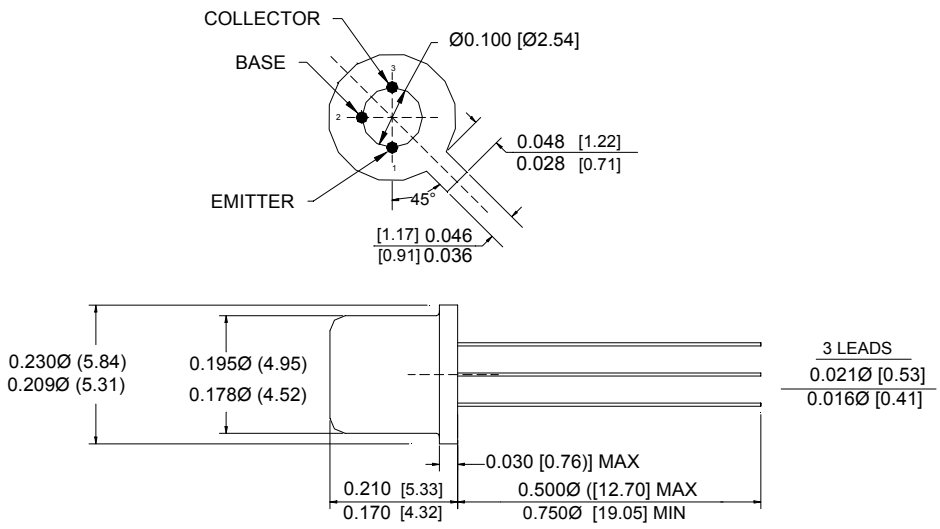
ABSOLUTE MAXIMUM RATINGS

Collector-Base Voltage	60V
Collector-Emitter Voltage	60V
Emitter-Base Voltage	5V
Collector Current-Continuous	600mA
Operating Temperature	-65°C to +200°C
Storage Temperature	-65°C to +200°C
Maximum Junction Temperature	200°C
Power Dissipation @ T_A = 25°C	0.4W 1/
Soldering Temperature (vapor phase reflow for 30 seconds)	215°C

Note:

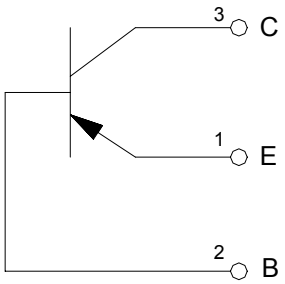
1. Derate linearly @ 2.28 mw/°C for T_A > 25°C.

Package Dimensions



DIMENSIONS ARE IN INCHES (MILLIMETERS)

Schematic Diagram



OPTICAL/ELECTRICAL CHARACTERISTICS

T_A = 25°C unless otherwise specified.

PARAMETER	SYMBOL	MIN	MAX	UNITS	TEST CONDITIONS	NOTE
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	60		V	I_C = 10μA, I_E = 0	
Collector-Emitter Breakdown Voltage	$V_{(BR)CBO}$	60		V	I_C = 10mA, I_B = 0 2/	
Emitter-Base Breakdown Voltage	$V_{(BR)CBO}$	5.0		V	I_E = 10μA, I_C = 0	
Collector-Base Cutoff Current	I_{CBO}		10	nA	V_{CB} = 50V, I_E = 0	
			10	μA	V_{CB} = 50V, I_E = 0, T_A = 150°C	
Collector-Emitter Cutoff Current	I_{CES}		50	nA	V_{CE} = 30V	
Emitter-Base Cutoff Current	I_{EBO}		50	nA	V_{EB} = 3.5V, I_C = 0	
Forward-Current transfer Ratio	h_{fe1}	75		-	V_{CE} = 10V, I_C = 0.1mA	
		100	450	-	V_{CE} = 10V, I_C = 1.0mA	
		100		-	V_{CE} = 10V, I_C = 10mA	
		100	300	-	V_{CE} = 10V, I_C = 150mA	1
		50		-	V_{CE} = 10V, I_C = 500mA	1
		50		-	V_{CE} = 10V, I_C = 1.0mA @ -55°C	
Collector-Emitter Saturation Voltage	$V_{CE\ (SAT)}$		0.40	V	I_C = 150mA, I_B = 15mA	1
			1.60	V	I_C = 500 mA, I_B = 50mA	1
Base-Emitter Saturation Voltage	$V_{BE\ (SAT)}$		1.30	V	I_C = 150mA, I_B = 15mA	1
			2.60	V	I_C = 500mA, I_B = 50mA	1

SMALL-SIGNAL CHARACTERISTICS

Small Signal Forward Current Transfer Ratio	h_{fe}	100		-	V_{CE} = 10V, I_C = 1mA, f = 1kHz	
Small Signal Forward Current Transfer Ratio	h_{fe}	2.0		-	V_{CE} = 20V, I_C = 50mA, f =100kHz	
Open Circuit Output Capacitance	C_{OBO}		8.0	pF	V_{CB} = 10V, 100kHz, ≤ f ≤ 1 MHz	
Input Capacitance (Output Open Capacitance)	C_{IBO}		30	pF	V_{EB} = 2.0V, 100kHz, ≤ f ≤ 1 MHz	
Turn-On Time	t_{on}		45	ns	V_{CC} = 30V, I_C = 150mA, I_{B1} = 15mA	
Turn-Off Time	t_{off}		300	ns	V_{CC} = 30V, I_C = 150mA, I_{B1} = I_{B2} = 15mA	

NOTES:

1. Pulse width ≤ 300μs, duty cycle ≤ 2.0%.