

PNP MEDIUM POWER TRANSISTOR

Type	Marking
STX817	X817

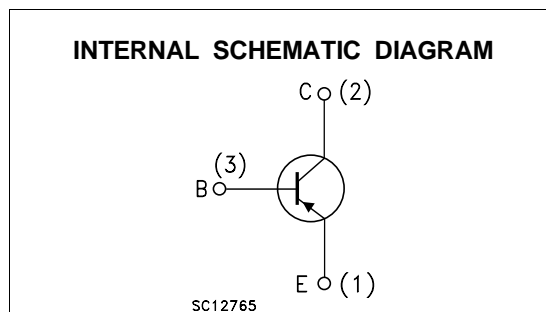
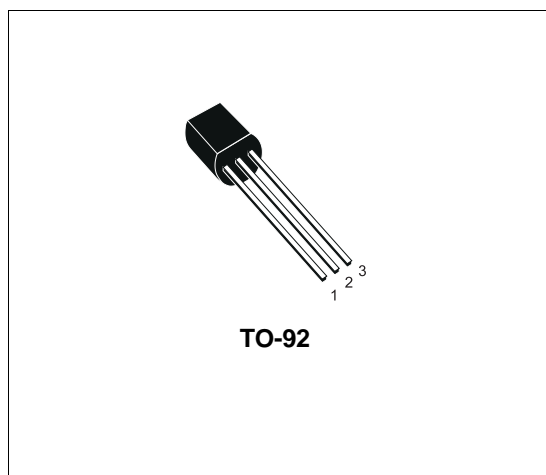
- DEVICE SUITABLE FOR THROUGH-HOLE PCB ASSEMBLY

APPLICATIONS

- VOLTAGE REGULATION
- RELAY DRIVER
- GENERIC SWITCH

DESCRIPTION

The STX817 is a PNP transistor manufactured using Planar Technology resulting in rugged high performance devices.



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage ($I_E = 0$)	-120	V
V_{CEO}	Collector-Emitter Voltage ($I_B = 0$)	-80	V
V_{EBO}	Emitter-Base Voltage ($I_C = 0$)	-5	V
I_C	Collector Current	-1.5	A
I_{CM}	Collector Peak Current ($t_p < 5$ ms)	-2	A
I_B	Base Current	-0.3	A
I_{BM}	Base Peak Current ($t_p < 5$ ms)	-0.6	A
P_{tot}	Total Dissipation at $T_{amb} = 25$ °C	0.9	W
T_{stg}	Storage Temperature	-65 to 150	°C
T_j	Max. Operating Junction Temperature	150	°C

STX817

THERMAL DATA

$R_{thj-case}$	Thermal Resistance Junction-case	Max	44.6	$^{\circ}C/W$
$R_{thj-amb}$	Thermal Resistance Junction-ambient	Max	139	$^{\circ}C/W$

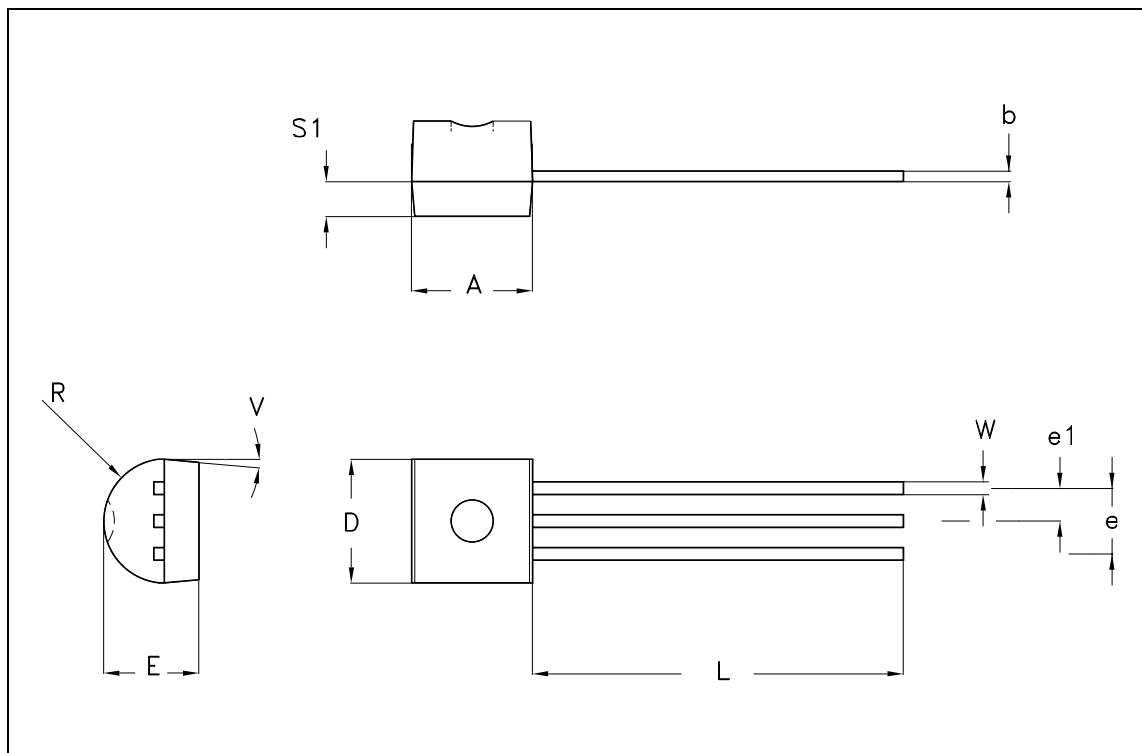
ELECTRICAL CHARACTERISTICS ($T_{case} = 25^{\circ}C$ unless otherwise specified)

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
I_{CES}	Collector Cut-off Current ($V_{BE} = 0$)	$V_{CE} = -120 V$				-500	μA
I_{CEO}	Collector Cut-off Current ($I_B = 0$)	$V_{CE} = -80 V$				-1	mA
I_{EBO}	Emitter Cut-off Current ($I_C = 0$)	$V_{EB} = -5 V$				-100	μA
$V_{CEO(sus)*}$	Collector-Emitter Sustaining Voltage ($I_B = 0$)	$I_C = -10 mA$		-80			V
$V_{CE(sat)*}$	Collector-Emitter Saturation Voltage	$I_C = -100 mA$ $I_C = -1 A$	$I_B = -10 mA$ $I_B = -100 mA$			-0.25 -0.5	V V
$V_{BE(sat)*}$	Base-Emitter Saturation Voltage	$I_C = -100 mA$ $I_C = -1 A$	$I_B = -10 mA$ $I_B = -100 mA$			-1 -1.1	V V
h_{FE*}	DC Current Gain	$I_C = -100 mA$ $I_C = -500 mA$ $I_C = -1 A$	$V_{CE} = -2 V$ $V_{CE} = -2 V$ $V_{CE} = -2 V$	140 80 40			
f_T	Transition Frequency	$I_C = -0.1 A$	$V_{CE} = -10 V$		50		MHz

* Pulsed: Pulse duration = 300 μs , duty cycle 1.5 %

TO-92 MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	4.32		4.95	0.170		0.195
b	0.36		0.51	0.014		0.020
D	4.45		4.95	0.175		0.194
E	3.30		3.94	0.130		0.155
e	2.41		2.67	0.095		0.105
e1	1.14		1.40	0.045		0.055
L	12.70		15.49	0.500		0.609
R	2.16		2.41	0.085		0.094
S1	1.14		1.52	0.045		0.059
W	0.41		0.56	0.016		0.022
V	4 degree		6 degree	4 degree		6 degree



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