



PN 3569

NPN SILICON PLANAR EPITAXIAL TRANSISTOR

MICRO ELECTRONICS

GENERAL DESCRIPTION :

The PN 3569 is an NPN silicon planar epitaxial transistor designed for amplifier and switching applications for collector current up to 500mA.

MECHANICAL OUTLINE

TO-92A



EBC

ABSOLUTE MAXIMUM RATINGS :

Continuous Power Dissipation @ $T_A=25^{\circ}C$,	P_d	0.3W
Continuous Power Dissipation @ $T_C=25^{\circ}C$,	P_d	0.8W
Maximum Collector Junction Temperature,	T_j	125 $^{\circ}C$
Storage Temperature Range,	T_{stg}	-55 $^{\circ}C$ to +125 $^{\circ}C$
Soldering Temperature (10 sec. time limit)		260 $^{\circ}C$
Collector to Base Voltage,	V_{CBO}	80V
Collector to Emitter Voltage,	V_{CEO}	40V
Emitter to Base Voltage,	V_{EBO}	5V

ELECTRICAL CHARACTERISTICS @ $T_A=25^{\circ}C$ (unless otherwise stated) :

PARAMETER	SYMBOL	MIN	MAX	UNIT	TEST CONDITIONS
Collector-Base Breakdown Voltage	BV_{CBO}	80		V	$I_C=100\mu A$ $I_E=0$
Collector-Emitter Sustaining Voltage	$V_{CEO(sust)}^*$	40		V	$I_C=30mA$ $I_B=0$
Emitter-Base Breakdown Voltage	BV_{EBO}	5		V	$I_E=10\mu A$ $I_C=0$
Collector Cutoff Current	I_{CBO}		50	nA	$V_{CB}=40V$ $I_E=0$
Collector Cutoff Current	I_{CBO}		5	μA	$V_{CB}=40V$ $I_E=0$ $T_A=75^{\circ}C$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		0.25	V	$I_C=150mA$ $I_B=15mA$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		1.1	V	$I_C=150mA$ $I_B=15mA$
D.C. Current Gain	h_{FE}^*	100	300		$V_{CE}=1V$ $I_C=150mA$

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PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
D.C. Current Gain	h_{FE}^*	100				$V_{CE}=1V$ $I_C=30mA$
High Frequency Current Gain	h_{fe}	3				$V_{CE}=10V$ $I_C=50mA$ $f=20Mc$
Output Capacitance	C_{ob}		18	20	pF	$V_{CB}=10V$ $I_E=0$
Input Capacitance	C_{ib}		44	80	pF	$V_{EB}=0.5V$ $I_C=0$

* Pulse Conditions : Length=300uS, duty cycle=1%