

# Central<sup>TM</sup> Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

2N3567 PN3567  
2N3568 PN3568  
2N3569 PN3569

JEDEC TO-105 JEDEC TO-92 (EBC)

SILICON NPN TRANSISTORS

## DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N3567, PN3567 Series types are Silicon NPN Small Signal Transistors designed for general purpose amplifier applications.

## MAXIMUM RATINGS ( $T_A=25^{\circ}\text{C}$ )

	SYMBOL	2N3568 PN3568	2N3567 PN3567 2N3569 PN3569	UNIT
Collector-Base Voltage	$V_{CB0}$	80	80	V
Collector-Emitter Voltage	$V_{CE0}$	60	40	V
Emitter-Base Voltage	$V_{EB0}$	5.0	5.0	V
Collector Current	$I_C$	500	500	mA
Base Current	$I_B$	100	100	mA
Power Dissipation, PN Types (TO-92 Case)	$P_D$		625	mW
Power Dissipation, 2N Types (TO-105 Case)	$P_D$		350	mW
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-55 TO +150		$^{\circ}\text{C}$

## ELECTRICAL CHARACTERISTICS ( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	2N3567 PN3567		2N3568 PN3568		2N3569 PN3569		UNIT
		MIN	MAX	MIN	MAX	MIN	MAX	
$I_{CB0}$	$V_{CB}=40\text{V}$		50		50		50	nA
$I_{CBO}$	$V_{CB}=40\text{V}, T_A=75^{\circ}\text{C}$		5.0		5.0		5.0	$\mu\text{A}$
$I_{EBO}$	$V_{EB}=4.0\text{V}$		25		25		25	nA
$BV_{CB0}$	$I_C=100\mu\text{A}$	80		80		80		V
$BV_{CE0}$	$I_C=30\text{mA}$	40		60		40		V
$BV_{EBO}$	$I_E=10\mu\text{A}$	5.0		5.0		5.0		V
$V_{CE(SAT)}$	$I_C=150\text{mA}, I_B=15\text{mA}$		0.25		0.25		0.25	V
$V_{BE(ON)}$	$V_{CE}=1.0\text{V}, I_C=150\text{mA}$		1.1		1.1		1.1	V
hFE	$V_{CE}=1.0\text{V}, I_C=30\text{mA}$	40		40		100		
hFE	$V_{CE}=1.0\text{V}, I_C=150\text{mA}$	40	120	40	120	100	300	
$C_{ob}$	$V_{CB}=10\text{V}, f=140\text{kHz}$		20		20		20	pF
$C_{eb}$	$V_{EB}=0.5\text{V}, f=140\text{kHz}$		80		80		80	pF
$f_T$	$V_{CE}=10\text{V}, I_C=50\text{mA}, f=20\text{MHz}$	60	600	60	600	60	600	MHz