

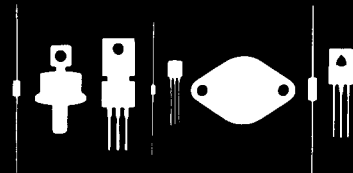
Central
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145 Adams Avenue
Hauppauge, New York 11788



2N4258
2N4258A

PN4258
PN4258A

JEDEC TO-106

JEDEC TO-92

PNP SILICON SWITCHING TRANSISTOR

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N4258,A/PN4258,A types are Silicon PNP Transistors designed for ultra high speed switching applications.

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

	SYMBOL	2N/PN4258	2N/PN4258A	UNIT
Collector-Base Voltage	V_{CB0}	12	12	V
Collector-Emitter Voltage	V_{CES}	12	12	V
Collector-Emitter Voltage	V_{CE0}	12	12	V
Emitter-Base Voltage	V_{EB0}	4.5	4.5	V
Collector Current	I_C	50	50	mA
Power Dissipation	P_D	PN4258,A 625	2N4258,A 310	mW
Operating and Storage				
Junction Temperature	T_J, T_{stg}	-65 TO +150		$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$)

SYMBOL	TEST CONDITIONS	2N/PN4258		2N/PN4258A		UNIT
		MIN	MAX	MIN	MAX	
I_{CES}	$V_{CE}=6.0\text{V}$		10		10	nA
I_B	$V_{CE}=6.0\text{V}, V_{BE}=0$		-		1.0	nA
BV_{CB0}	$I_C=100\mu\text{A}$	12		12		V
BV_{CES}	$I_C=100\mu\text{A}$	12		12		V
BV_{CE0}	$I_C=3.0\text{mA}$	12		12		V
BV_{EB0}	$I_E=100\mu\text{A}$	4.5		4.5		V
$V_{CE}(\text{SAT})$	$I_C=10\text{mA}, I_B=1.0\text{mA}$		0.15		0.15	V
$V_{CE}(\text{SAT})$	$I_C=50\text{mA}, I_B=5.0\text{mA}$		0.5		0.5	V
$V_{BE}(\text{SAT})$	$I_C=10\text{mA}, I_B=1.0\text{mA}$	0.75	0.95	0.75	0.95	V
$V_{BE}(\text{SAT})$	$I_C=50\text{mA}, I_B=5.0\text{mA}$		1.5		1.5	V
h_{FE}	$V_{CE}=0.5\text{V}, I_C=1.0\text{mA}$	15		15		
h_{FE}	$V_{CE}=3.0\text{V}, I_C=10\text{mA}$	30	120	30	120	
h_{FE}	$V_{CE}=1.0\text{V}, I_C=50\text{mA}$	30		30		
f_T	$V_{CE}=10\text{V}, I_C=10\text{mA}, f=100\text{MHz}$	700		700		MHz
C_{ob}	$V_{CB}=5.0\text{V}, f=140\text{kHz}$		3.0		3.0	pF
C_{ib}	$V_{EB}=0.5\text{V}, f=140\text{kHz}$		3.5		3.5	pF
t_{on}	$I_C=10\text{mA}, I_{B1}=1.0\text{mA}$		15		15	ns
t_{off}	$I_C=10\text{mA}, I_{B1}=I_{B2}=1.0\text{mA}$		20		18	ns
τ_s	$I_C=10\text{mA}, I_{B1}=I_{B2}=10\text{mA}$		20		15	ns