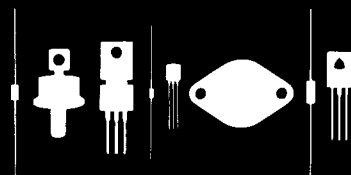


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145 Adams Avenue
Hauppauge, New York 11788



2N3641 PN3641
2N3642 PN3642
2N3643 PN3643

JEDEC TO-105 JEDEC TO-92

NPN SILICON SIGNAL TRANSISTORS

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N3641, PN3641 Series types are Silicon NPN Small Signal Transistors designed for general purpose amplifier applications.

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

	SYMBOL	2N3641 2N3643 PN3641 PN3643	2N3642 PN3642	UNIT
Collector-Base Voltage	V_{CB0}	60	60	V
Collector-Emitter Voltage	V_{CE0}	30	45	V
Emitter-Base Voltage	V_{EB0}	5.0	5.0	V
Collector Current	I_C	500	500	mA
		2N3641 2N3642 2N3643	PN3641 PN3642 PN4643	
Power Dissipation	P_D	350	625	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-55 TO $+125$	-55 TO $+150$	$^{\circ}\text{C}$

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

SYMBOL	TEST CONDITIONS	2N3641 PN3641 MIN MAX	2N3642 PN3642 MIN MAX	2N3643 PN3643 MIN MAX	UNIT
I_{CES}	$V_{CE}=50\text{V}$	50	50	50	nA
BV_{CB0}	$I_C=10\mu\text{A}$	60	60	60	V
BV_{CES}	$I_C=10\mu\text{A}$	60	60	60	V
BV_{CE0}	$I_C=10\text{mA}$	30	45	30	V
BV_{EB0}	$I_E=10\mu\text{A}$	5.0	5.0	5.0	V
$V_{CE(SAT)}$	$I_C=150\text{mA}, I_B=15\text{mA}$	0.22	0.22	0.22	V
h_{FE}	$V_{CE}=10\text{V}, I_C=150\text{mA}$	40 120	40 120	100 300	
h_{FE}	$V_{CE}=10\text{V}, I_C=500\text{mA}$	15	15	25	
f_T	$V_{CE}=5.0\text{V}, I_C=50\text{mA}, f=100\text{MHz}$	150	150	250	MHz
C_{ob}	$V_{CB}=10\text{V}, f=140\text{kHz}$	8.0	8.0	8.0	pF
G_{pe}	$V_{CE}=15\text{V}, R_G=140\Omega, R_L=260\Omega, f=30\text{MHz}, P_{IN}=40\text{mW}$	10	10	10	dB
η	$V_{CE}=15\text{V}, R_G=140\Omega, R_L=260\Omega, f=30\text{MHz}, P_{IN}=40\text{mW}$	60	60	60	%
t_{on}	$I_C=300\text{mA}, I_{B1}=30\text{mA}$	60	60	60	ns
t_{off}	$I_C=300\text{mA}, I_{B1}=I_{B2}=30\text{mA}$	150	150	150	ns

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