

2N1416

GENERAL DESCRIPTION

PNP, Medium Power, alloy junction transistors for audio output applications.

ABSOLUTE MAXIMUM RATINGS (Note 1)

Storage Temperature	-40 to +75	°C
Junction Temperature	-40 to +75	°C
Junction Temperature Rise (without heat sink)	0.20	°C/mw
Junction Temperature Rise (with infinite heat sink)	0.12	°C/mw
Collector to Emitter Voltage, V_{CE}	-18	volts
Collector Current, I_C	-150	ma
Collector Dissipation at 25°C ambient temperature	250	mw

ELECTRICAL CHARACTERISTICS (T = 25°C)

Static Characteristics

	<i>Min.</i>	<i>Typ.</i>	<i>Max.</i>	
Collector Cutoff Current, I_{CBO} ($V_{CE} = -9v$)		7	20	μa
Collector Current, I_{CMB} ($R_B = 1000$ ohms, $V_{CE} = -9v$) ..		50	150	μa

Small Signal Parameters

($V_C = -4.5v$, $I_C = -2ma$)

Input Resistance, h_{ib}	15	35	ohms
Output Conductance, h_{ob}	1	5	$\mu mhos$
Current Amplification Factor, h_{fe}	70	110	150
Voltage Feedback Ratio, h_{rb}	2.5×10^{-4}		
Cutoff Frequency, f_{cb}	600		kc
Output Capacitance, C_{ob}	90		μf

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