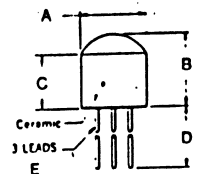


2N4996

HIGH-FREQUENCY TRANSISTORS
FOR TUNER AND IF-AMPLIFIER STAGES
IN FM AND AM/FM STEREO-MULTIPLEX RECEIVERS

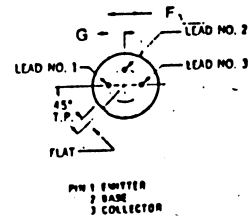
*absolute maximum ratings at 25°C free-air temperature (unless otherwise noted)

Collector-Base Voltage	30 V
Collector-Emitter Voltage	18 V
Emitter-Base Voltage	4 V
Continuous Collector Current	50 mA
Continuous Device Dissipation at (or below) 25°C Free-Air Temperature	250 mW
Storage Temperature Range	-65°C to 150°C
Lead Temperature 1/8 Inch from Case for 10 Seconds	260°C



electrical characteristics at 25°C free-air temperature (unless otherwise noted)

PARAMETER	TEST CONDITIONS	2N4996			UNIT
		MIN	TYP	MAX	
$V_{(BR)CBO}$ Collector-Base Breakdown Voltage	$I_C = 10 \mu A, I_E = 0$	30			V
$V_{(BR)CEO}$ Collector-Emitter Breakdown Voltage	$I_C = 2 mA, I_B = 0$	18			V
$V_{(BR)EBO}$ Emitter-Base Breakdown Voltage	$I_E = 10 \mu A, I_C = 0$	4			V
I_{CBO} Collector Cutoff Current	$V_{CE} = 15 V, I_E = 0$		100		nA
	$V_{CE} = 15 V, I_E = 0, T_A = 85^\circ C$		10		μA
h_{FE} Static Forward Current Transfer Ratio	$V_{CE} = 10 V, I_C = 2 mA$	50			
$ h_{re} $ Small-Signal Common-Emitter Forward Current Transfer Ratio	$V_{CE} = 10 V, I_C = 2 mA, f = 100 MHz$	6	14		
$ y_{re} $ Small-Signal Common-Emitter Forward Transfer Admittance	$V_{CE} = 10 V, I_C = 2 mA, f = 10 MHz$				mmho
C_{cb} Collector-Base Capacitance	$V_{CE} = 10 V, I_E = 0, f = 1 MHz$	0.1	0.65		pF
r_{oop} Parallel-Equivalent Common-Emitter Short-Circuit Output Resistance	$V_{CE} = 10 V, I_C = 2 mA, f = 10 MHz$				k Ω
$t_{b'c}$ Collector-Base Time Constant	$V_{CE} = 10 V, I_E = -2 mA, f = 79.8 MHz$	14	20		ps



DIM.	INCHES		
	MIN.	TYP.	MAX.
A	.192		.222
B			.240
C	.100		.120
D	.500		
E	.016		.019
F		.100	
G		.050	

operating characteristics at 25°C free-air temperature

PARAMETER	TEST CONDITIONS	2N4996		UNIT
		TYP		
NF Spot Noise Figure	$V_{CE} = 10 V, I_C = 2 mA, R_G = 100 \Omega, f = 100 MHz$	2.5		dB

