

## NTE16001 Silicon NPN Transistor Video IF Amp

**Features:**

- High Transistion Frequency
- Good Linearity of DC Current Gain
- An M Type Mold package that Allows Easy Manual and Automatic Insertion. Can be Firmly Mounted Flush to PC Board Surface.

**Absolute Maximum Ratings:** ( $T_A = +25^{\circ}\text{C}$  unless otherwise specified)

Collector–Base Voltage, $V_{CBO}$ .....	45V
Collector–Emitter Voltage, $V_{CEO}$ .....	35V
Emitter–Base Voltage, $V_{EBO}$ .....	4V
Collector Current, $I_C$ .....	50mA
Collector Power Dissipation, $P_C$ .....	600mW
Operating Junction Temperature, $T_J$ .....	$+150^{\circ}\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-55^{\circ}$ to $+150^{\circ}\text{C}$

**Electrical Characteristics:** ( $T_A = +25^{\circ}\text{C}$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cutoff Current	$I_{CEO}$	$V_{CE} = 20\text{V}, I_B = 0$	–	–	10	$\mu\text{A}$
Collector–Base Voltage	$V_{CBO}$	$I_C = 10\mu\text{A}, I_E = 0$	45	–	–	V
Collector–Emitter Voltage	$V_{CEO}$	$I_C = 1\text{mA}, I_B = 0$	35	–	–	V
Emitter–Base Voltage	$V_{EBO}$	$I_E = 10\mu\text{A}, I_C = 0$	4	–	–	V
DC Current Gain	$h_{FE}$	$V_{CB} = 10\text{V}, I_E = -10\text{mA}$	20	50	100	
Collector–Emitter Saturation Volatge	$V_{CE(sat)}$	$I_C = 20\text{mA}, I_B = 2\text{mA}$	–	–	0.5	V
Transistion Frequency	$f_T$	$V_{CB} = 10\text{V}, I_E = -10\text{mA}, f = 100\text{MHz}$	300	500	–	MHz
Small–Signal Reverse Transfer Capacitance	$C_{re}$	$V_{CE} = 10\text{V}, I_C = 1\text{mA}$	–	–	1.5	pF
Power Gain	PG	$V_{CB} = 10\text{V}, I_E = -10\text{mA}, f = 58\text{MHz}$	–	18	–	dB





