

NTE227 Silicon NPN Transistor High Voltage Amp, Video Output

Absolute Maximum Ratings:

Collector–Base Voltage, V_{CBO}	300V
Collector–Emitter Voltage, V_{CEO}	300V
Emitter–Base Voltage, V_{EBO}	6V
Collector Current, I_C	100mA
Power Dissipation ($T_A = +25^\circ\text{C}$), P_{Dmax}	850mW
Power Dissipation ($T_{COLLECTOR LEAD} = +25^\circ\text{C}$), P_{Dmax}	2W
Maximum Operating Junction Temperature, T_{jmax}	+150°C
Thermal Resistance, Junction–to–Case ($T_{COLLECTOR LEAD} = +25^\circ\text{C}$), R_{thJC}	62.5°C/W
Thermal Resistance, Junction–to–Ambient ($T_A = +25^\circ\text{C}$), R_{thJA}	147°C/W

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 260V$	–	–	100	nA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 6V$	–	–	100	nA
DC Current Gain	h_{FE}	$I_C = 1mA, V_{CE} = 10V$	25	–	–	
		$I_C = 10mA, V_{CE} = 10V$	40	90	200	
Collector–Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 1mA$	300	–	–	V
Collector–Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 100\mu A$	300	–	–	V
Emitter–Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 10\mu A$	6	–	–	V
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 20mA, I_B = 2mA$	–	0.25	1.0	V
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 20mA, I_B = 2mA$	–	0.74	1.0	V
Transition Frequency	f_T	$I_C = 10mA$	50	–	200	MHz
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 10mA$	–	–	0.76	V
Capacitance	C_{ib}		–	–	70	pF

