

PNP SILICON POWER TRANSISTOR

2SA1546

DESCRIPTION The 2SA1546 is designed for uses of high-resolution monitor TV applications. This makes it possible to raise the video band of high-resolution monitor TVs to 50 MHz.

- FEATURES**
- High f_T : $f_T = 300$ MHz TYP. (@ $V_{CE} = -30$ V, $I_E = 30$ mA)
 - Low C_{ob} : $C_{ob} = 3.3$ pF (@ $V_{CB} = -30$ V)
 - High Voltage: $V_{CBO} = V_{CEO} = -250$ V
 - High Total Power Dissipation:
 P_T ($T_a/T_c = 25^\circ\text{C}$) = 1.3 W/7 W
 - Complementary to 2SC4001

ABSOLUTE MAXIMUM RATINGS

Maximum Temperatures

Storage Temperature -55 to $+150^\circ\text{C}$

Junction Temperature 150°C Maximum

Maximum Power Dissipation

Total Power Dissipation ($T_a = 25^\circ\text{C}$) 1.3 W

Total Power Dissipation ($T_c = 25^\circ\text{C}$) 7 W

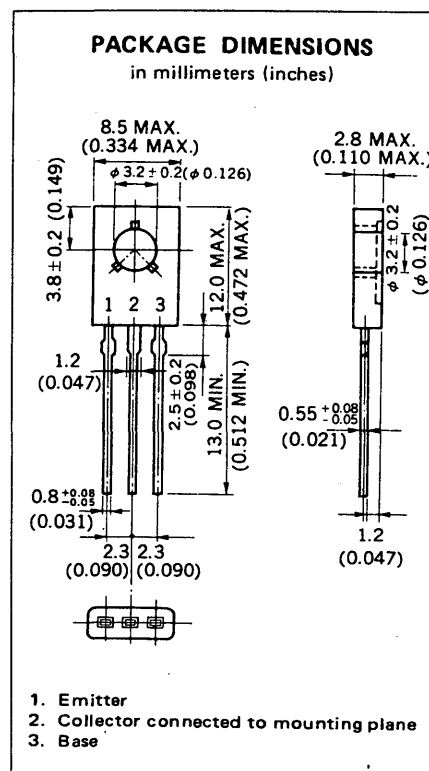
Maximum Voltages and Current ($T_a = 25^\circ\text{C}$)

V_{CBO} Collector to Base Voltage -250 V

V_{CEO} Collector to Emitter Voltage -250 V

V_{EBO} Emitter to Base Voltage -5.0 V

I_C Collector Current -100 mA



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

SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
h_{FE}	DC Current Gain	60	150	320	—	$V_{CE} = -10$ V, $I_C = -10$ mA
f_T	Gain Bandwidth Product	200	300		MHz	$V_{CE} = -30$ V, $I_E = 30$ mA
C_{ob}	Output Capacitance		3.3	3.7	pF	$V_{CB} = -30$ V, $I_E = 0$, $f = 1$ MHz
I_{CBO}	Collector Cutoff Current			100	nA	$V_{CB} = -200$ V, $I_E = 0$
I_{EBO}	Emitter Cutoff Current			100	nA	$V_{EB} = -3.0$ V, $I_C = 0$
$V_{CE(sat)}$	Collector Saturation Voltage		-0.12	-0.3	V	$I_C = -10$ mA, $I_B = -1.0$ mA
$V_{BE(sat)}$	Base Saturation Voltage		-0.73	-1.2	V	$I_C = -10$ mA, $I_B = -1.0$ mA
V_{ESDR}	Electrostatic Discharge-Resistant		800		V	$C = 1000$ pF, E-B Reverse Bias

* Pulsed PW < 350 μs , Duty Cycle < 2 %

TYPICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)