

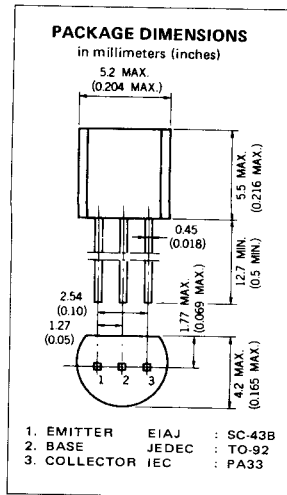
PNP SILICON TRANSISTOR
2SA1153

DESCRIPTION The 2SA1153 is designed for general purpose amplifier and high speed switching applications.

- FEATURES**
- High Frequency Current Gain.
 - High Speed Switching.
 - Small Output Capacitance.
 - Low Collector Saturation Voltage.
 - Complementary to the NEC 2SC2720 NPN transistor.

ABSOLUTE MAXIMUM RATINGS (T_a = 25 °C)

Maximum Temperatures	
Storage Temperature -55 to +150 °C
Junction Temperature 150 °C Maximum
Maximum Power Dissipation (T_a = 25 °C)	
Total Power Dissipation 600 mW
Maximum Voltages and Current (T_a = 25 °C)	
V _{CB0} Collector to Base Voltage -60 V
V _{CEO} Collector to Emitter Voltage -40 V
V _{EB0} Emitter to Base Voltage -5.0 V
I _C Collector Current (DC) -500 mA



ELECTRICAL CHARACTERISTICS (T_a = 25 °C)

SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
t _{on}	Turn-on Time			35	ns	See Test Circuit.
t _{off}	Turn off Time			255	ns	See Test Circuit.
t _{stg}	Storage Time			225	ns	See Test Circuit.
f _T	Gain Bandwidth Product	150	400		MHz	V _{CE} = -10 V, I _E = 20 mA
C _{ob}	Output Capacitance		5.0	8.0	pF	V _{CB} = -10 V, I _E = 0, f = 1 MHz
h _{FE1} *	DC Current Gain	50	140	300	-	V _{CE} = -2.0 V, I _C = -150 mA
h _{FE2} *	DC Current Gain	20	50		-	V _{CE} = -2.0 V, I _C = -500 mA
V _{CE(sat)} *	Collector Saturation Voltage		-0.45	-0.75	V	I _C = -500 mA, I _B = -50 mA
V _{BE(sat)} *	Base Saturation Voltage		-1.0	-1.3	V	I _C = -500 mA, I _B = -50 mA
I _{CBO}	Collector Cutoff Current			-0.1	μA	V _{CB} = -40 V, I _E = 0
I _{EBO}	Emitter Cutoff Current			-0.1	μA	V _{EB} = -4.0 V, I _C = 0

*Pulsed PW ≤ 350 μs, Duty Cycle ≤ 2 %