

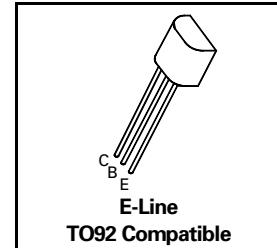
# PNP SILICON PLANAR MEDIUM POWER TRANSISTOR

**2N6520**

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## FEATURES

- \* 350 Volt  $V_{CEO}$
- \* Gain of 15 at  $I_C = -100\text{mA}$



## ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	$V_{CBO}$	-350	V
Collector-Emitter Voltage	$V_{CEO}$	-350	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Base Current	$I_B$	-250	mA
Continuous Collector Current	$I_C$	-500	mA
Power Dissipation at $T_{amb} = 25^\circ\text{C}$	$P_{tot}$	680	mW
Operating and Storage Temperature Range	$T_j:T_{stg}$	-55 to +200	°C

## ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^\circ\text{C}$ unless otherwise stated).

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-350		V	$I_C = -100\mu\text{A}, I_E = 0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-350		V	$I_C = -1\text{mA}, I_B = 0^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5		V	$I_E = -10\mu\text{A}, I_C = 0$
Collector Cut-Off Current	$I_{CBO}$		-50	nA	$V_{CB} = -250\text{V}, I_E = 0$
Emitter Cut-Off Current	$I_{EBO}$		-50	nA	$V_{EB} = -4\text{V}, I_C = 0$
Collector-Emitter Saturation Voltage	$V_{CE(\text{sat})}$		-0.3 -0.35 -0.5 -1.0	V	$I_C = -10\text{mA}, I_B = -1\text{mA}^*$ $I_C = -20\text{mA}, I_B = -2\text{mA}^*$ $I_C = -30\text{mA}, I_B = -3\text{mA}^*$ $I_C = -50\text{mA}, I_B = -5\text{mA}^*$
Base-Emitter Saturation Voltage	$V_{BE(\text{sat})}$		-0.80 -0.85 -0.90	V	$I_C = -10\text{mA}, I_B = -1\text{mA}^*$ $I_C = -20\text{mA}, I_B = -2\text{mA}^*$ $I_C = -30\text{mA}, I_B = -3\text{mA}^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$		-2.0	V	$I_C = -100\text{mA}, V_{CE} = -10\text{V}^*$
Static Forward Current Transfer Ratio	$h_{FE}$	20 30 30 20 15	200 200		$I_C = -1\text{mA}, V_{CE} = -10\text{V}$ $I_C = -10\text{mA}, V_{CE} = -10\text{V}^*$ $I_C = -30\text{mA}, V_{CE} = -10\text{V}^*$ $I_C = -50\text{mA}, V_{CE} = -10\text{V}^*$ $I_C = -100\text{mA}, V_{CE} = -10\text{V}^*$
Transition Frequency	$f_T$	40		MHz	$I_C = -10\text{mA}, V_{CE} = -20\text{V}, f = 20\text{MHz}$

\*Measured under pulsed conditions. Pulse width=300μs. Duty cycle ≤2%