

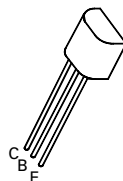
NPN SILICON PLANAR MEDIUM POWER TRANSISTOR

2N6517

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FEATURES

- * 350 Volt V_{CE0}
- * 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}	6	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	$^\circ\text{C}$

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	$V_{EB}=5\text{V}, I_C=0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		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	$V_{BE(sat)}$		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=300 μs . Duty cycle $\leq 2\%$