



NEW ENGLAND SEMICONDUCTOR

**2N5954
2N5955
2N5956**

ELECTRICAL CHARACTERISTICS FOR P-N-P TYPES ($T_C = 25^\circ\text{C}$ unless otherwise noted)

Characteristic	Symbol	Test Conditions				Limits						Units
		Voltage Vdc		Current Adc		2N5954		2N5955		2N5956		
		V _{CE}	V _{BE}	I _C	I _B	min	max	min	max	min	max	
Collector-Cutoff Current External base-to-emitter resistance (R _{BE}) = 100Ω	I _{CER}	-35 -55 -75					-100		-100		-100	μA
Base-Emitter Junction Reverse Biased (R _{BE}) = 100Ω	I _{CEX}	-45 -65 -85	1.5 1.5 1.5				-100		-100		-100	μA
Base-Emitter Junction Reverse Biased (R _{BE}) = 100Ω T _C = 150°C		-45 -65 -85	1.5 1.5 1.5				-2		-2		-2	mA
Base Open	I _{CEO}	-25 -45 -65					-1		-1		-1	mA
Emitter-Cutoff Current	I _{EBO}		5				-0.1		-0.1		-0.1	mA
DC Forward Current Transfer Ratio	h _{FE}	-4 -4 -4 -4		-3 ^a -2.5 ^a -2 ^a -6 ^a		20 5	100	20 5	100	20 5	100	
Collector-to-Emitter Sustaining Volt	V _{CEO(sus)}			-0.1 ^a		-80 ^b		-60 ^b		-40 ^b		
External base-to-emitter resistance (R _{BE}) = 100Ω	V _{CER(sus)}			-0.1 ^a		-85 ^b		-65 ^b		-45 ^b		V
Base-Emitter Junction Reverse Biased (R _{BE}) = 100Ω	V _{CEX(sus)}			-0.1 ^a		-90 ^b		-70 ^b		-50 ^b		
Base-Emitter Voltage	V _{BE}	-4 -4 -4		-3 ^a -2.5 ^a -2 ^a			-2		-2		-2	V
Collector-to-Emitter Saturation Volt	V _{CE(sat)}			-3 ^a -2.5 ^a -2 ^a	-0.3 -0.25 -0.2		-1		-1		-1	V
Magnitude of Common Emitter Small- Signal, Short-Circuit, Foward Current Transfer Ratio (f = 1MHz)	h _{fe}	-4		-1		5		5		5		
Common-Emitter, Small-Signal, Short-Circuit, Forward-Current Transfer Ratio (f = 1MHz)	h _{fe}	-4		-0.5		25		25		25		
Thermal Resistance: Junction-to-Case	R _{θJC}						4.3		4.3		4.3	°C/W

^aPulsed, pulse duration = 300 μs , duty factor = 1.8%

^bCAUTION: Sustaining voltages $V_{CEO(sus)}$, $V_{CER(sus)}$ and $V_{CEX(sus)}$ MUST NOT be measured on a curve tracer.

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