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## NTE302 Silicon NPN Transistor AM, CB Transmitter Driver, Switch

**Description:**

- 27-MHz AM CB Transmitter Driver Stage Switch

**Absolute Maximum Ratings:**

Collector-to-Base Voltage, $V_{CBO}$	100V
Collector-to-Emitter Voltage, $V_{CEO}$	50V
Emitter-to-Base Voltage, $V_{EBO}$	6V
Peak Collector Current, $I_{CM}$	1.5A
Base Current, $I_B$	0.5A
Collector Power Dissipation, $P_C$	
$T_A = +25^\circ\text{C}$	950mW
$T_C = +25^\circ\text{C}$	7.9W
Operating Junction Temperature, $T_j$	+150°C
Storage Temperature Range, $T_{stg}$	-50° to +150°C
Thermal Resistance, Junction-to-Case, $R_{thJC}$	12°C/W

**Electrical Characteristics:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = 25V, I_E = 0$	-	-	0.2	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 6V, I_C = 0$	-	-	0.2	$\mu\text{A}$
Base-Emitter Voltage	$V_{BE}$	$V_{CE} = 6V, I_C = 5\text{mA}$	-	-	0.7	V
Collector-Emitter Sustaining Voltage	$V_{CEO(sus)}$	$I_C = 2\text{mA}$	50	-	-	V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 1A, I_B = 50\text{mA}$	-	-	0.3	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-	-	1.0	V
DC Current Gain	$h_{FE1}$	$V_{CE} = 2V, I_C = 100\text{mA}$	98	-	649	-
		$V_{CE} = 1V, I_C = 1A$	70	-	-	-
Small Signal Current Gain	$ h_{fe} $	$V_{CB} = 2V, I_E = -10\text{mA}, f = 10\text{MHz}$	-	18	-	dB
Collector Output Capacitance	$C_C$	$V_{CB} = 10V, I_E = 0, f = 1\text{MHz}$	-	16	40	pF

