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NTE2669 Silicon NPN Transistor Horizontal Deflection High Speed Switch

Description:

The NTE2669 is a Horizontal Deflection Output for High Resolution Display-Color TV's in High Speed Switching Applications.

Features:

- High Voltage
- Low Saturation Voltage
- High Speed
- Built-in Damper Type
- Collector Metal (Fin) is Fully Covered with Mold Resin

Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Collector-Base Voltage, V_{CBO}	1700V
Collector-Emitter Voltage, V_{CEO}	700V
Emitter-Base Voltage, V_{EBO}	5V
Collector Current, I_C	
Continuous	10A
Pulse	20A
Base Current, I_B	5A
Collector Power Dissipation, P_C	50W
Junction Temperature, T_j	$+150^\circ\text{C}$
Storage Temperature Range, T_{stg}	-55° to $+150^\circ\text{C}$

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-off Current	I_{CBO}	$V_{CB} = 1700\text{V}, I_E = 0$	-	-	1	mA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = 5\text{V}, I_C = 0$	83	-	250	mA
Emitter-Base Breakdown Voltage	V_{EBO}	$I_E = 400\text{mA}, I_C = 0$	5	-	-	V
DC Current Gain	h_{FE}	$V_{CE} = 5\text{V}, I_C = 1\text{A}$	8	-	25	
		$V_{CE} = 5\text{V}, I_C = 6\text{A}$	4	-	8.5	

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 6A, I_B = 1.5A$	-	-	3	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 6A, I_B = 1.5A$	-	.9	1.2	V
Forward Voltage (Damper Diode)	$-V_F$	$I_F = 6A$	-	1.45	1.8	V
Transition Frequency	f_T	$V_{CE} = 10V, I_E = 0.1A$	-	2	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0, f = 1MHz$	-	185	-	pF
Switching, Storage Time	t_{stg}	$I_{CP} = 5A, I_{B1}(\text{end}) = 1A,$ $f_H = 31.5kHz$	-	4	6	μs
Switching, Fall Time	t_f		-	0.2	0.5	

