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2N6259

Silicon NPN Transistor

General Purpose, High Power Audio, Disk Head Positioner for Linear Applications

Description:

The 2N6259 is a silicon NPN power transistor in a TO3 type package designed for high power audio, disk head positioners, and other linear applications.

Absolute Maximum Ratings:

Collector-Emitter Voltage, $V_{CEO(sus)}$	150V
Collector-Emitter Voltage, V_{CEX}	170V
Collector-Base Voltage, V_{CBO}	170V
Emitter-Base Voltage, V_{EBO}	7V
Collector Current, I_C	
Continuous	16A
Peak (Note 1)	30A
Base Current, I_B	
Continuous	4A
Peak (Note 1)	15A
Total Power Dissipation ($T_C = +25^\circ\text{C}$), P_D	150W
Derate Above 25°C	0.857 W/ $^\circ\text{C}$
Operating Junction Temperature Range, T_J	-65° to $+200^\circ\text{C}$
Storage Temperature Range, T_{STG}	-65° to $+200^\circ\text{C}$
Thermal Resistance, Junction-to-Case, R_{thJC}	1.17 $^\circ\text{C/W}$

Note 1. Pulse Test: Pulse Width = 300 μs , Duty Cycle $\leq$ 2.0%.

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
OFF Characteristics						
Collector-Emitter Sustaining Voltage	$V_{CE(sus)}$	$I_C = 100\text{mA}$, $I_B = 0$, Note 1	150	–	–	V
Collector Cutoff Current	I_{CEX}	$V_{CE} = 150\text{V}$, $V_{BE(off)} = 1.5\text{V}$	–	–	2.0	mA
	I_{CEO}	$V_{CE} = 130\text{V}$, $I_B = 0$	–	–	10	mA
	I_{CBO}	$V_{CB} = 150\text{V}$, $I_E = 0$	–	–	2.0	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 7\text{V}$, $I_C = 0$	–	–	5.0	mA
ON Characteristics (Note 1)						
DC Current Gain	h_{FE}	$V_{CE} = 2\text{V}$, $I_C = 8\text{A}$	15	–	60	–
		$V_{CE} = 4\text{V}$, $I_C = 16\text{A}$	10	–	–	–
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 8\text{A}$, $I_B = 800\text{mA}$	–	–	1.0	V
		$I_C = 16\text{A}$, $I_B = 3.2\text{A}$	–	–	2.5	V
Base-Emitter On Voltage	$V_{BE(on)}$	$V_{CE} = 2\text{V}$, $I_C = 8\text{A}$	–	–	2.0	V

Note 1. Pulse Test: Pulse Width = $300\mu\text{s}$, Duty Cycle $\leq 2.0\%$.

