

Silicon NPN Power Transistors

NS50N

DESCRIPTION

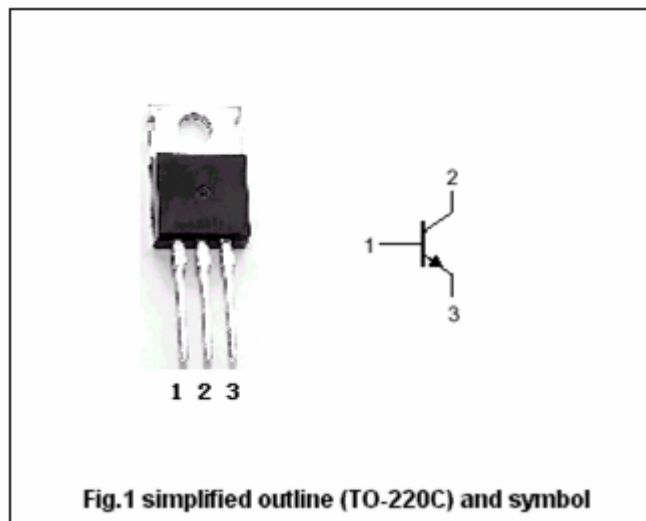
- With TO-220C package
- Complement to type NS50P

APPLICATIONS

- For medium power linear amplifier applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter

ABSOLUTE MAXIMUM RATINGS($T_C=25^{\circ}\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	60	V
V_{CEO}	Collector-emitter voltage	Open base	60	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current (DC)		6	A
I_{CM}	Collector current-Pulse		10	A
I_B	Base current		2	A
P_C	Collector power dissipation	$T_C=25^{\circ}\text{C}$	65	W
		$T_a=25^{\circ}\text{C}$	2	
T_j	Junction temperature		150	$^{\circ}\text{C}$
T_{stg}	Storage temperature		-65~150	$^{\circ}\text{C}$

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CHARACTERISTICS

Tj=25°C unless otherwise specified

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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	$I_C=30mA; I_B=0$	60			V
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C=6A; I_B=0.6A$			1.5	V
V_{BE}	Base-emitter on voltage	$I_C=6A; V_{CE}=4V$			2.0	V
I_{CES}	Collector cut-off current	$V_{CE}=60V; V_{EB}=0$			0.4	mA
I_{CEO}	Collector cut-off current	$V_{CE}=30V; I_B=0$			0.7	mA
I_{EBO}	Emitter cut-off current	$V_{EB}=5V; I_C=0$			1.0	mA
h_{FE-1}	DC current gain	$I_C=0.3A; V_{CE}=4V$	50		160	
h_{FE-2}	DC current gain	$I_C=3A; V_{CE}=4V$	15			
f_T	Transition frequency	$I_C=0.5A; V_{CE}=10V$	3			MHz

◆ h_{FE-1} Classifications

A	B
50-100	80-160

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PACKAGE OUTLINE

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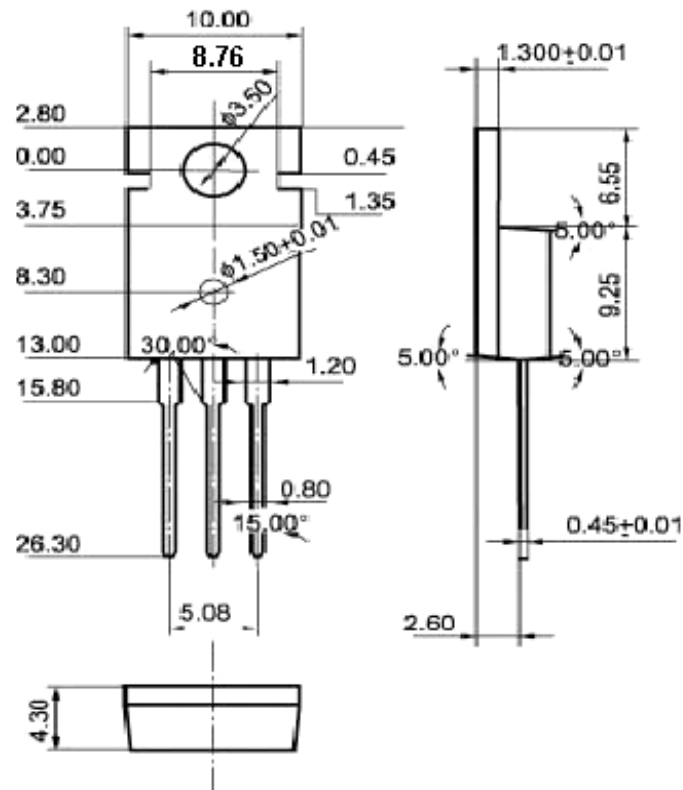


Fig.2 Outline dimensions