

Silicon NPN Power Transistors

2SD2061

DESCRIPTION

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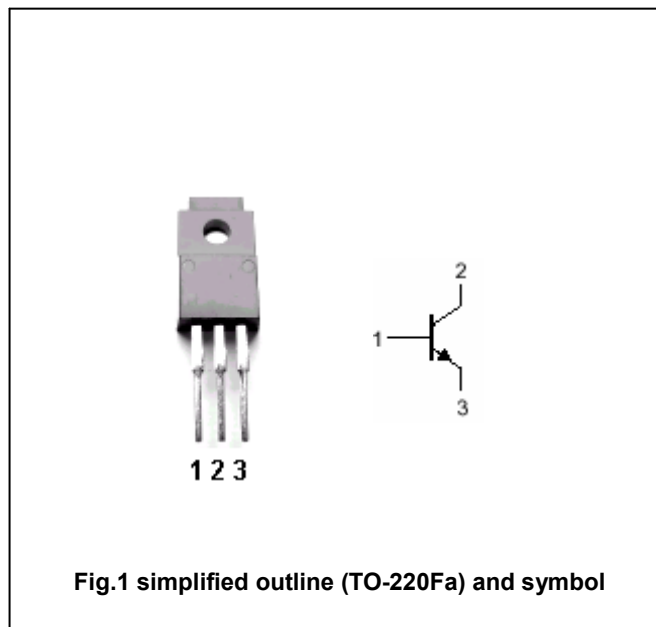
- With TO-220Fa package
- Low collector saturation voltage
- Excellent DC current gain characteristics
- Wide safe operating area

APPLICATIONS

- For low frequency power amplifier applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

Absolute maximum ratings ($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	80	V
V_{CEO}	Collector-emitter voltage	Open base	60	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current (DC)		3	A
I_{CM}	Collector current-Peak		6	A
P_C	Collector power dissipation	$T_C=25^\circ\text{C}$	30	W
		$T_a=25^\circ\text{C}$	2	
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

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 $T_j=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=1\text{mA}$, $I_B=0$	60			V
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C=50\mu\text{A}$, $I_E=0$	80			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=50\mu\text{A}$, $I_C=0$	5			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=2\text{A}$; $I_B=0.2\text{A}$			1.0	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=2\text{A}$; $I_B=0.2\text{A}$			1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=60\text{V}$, $I_E=0$			10	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=4\text{V}$; $I_C=0$			10	μA
h_{FE}	DC current gain	$I_C=0.5\text{A}$; $V_{CE}=5\text{V}$	100		320	
f_T	Transition frequency	$I_C=0.5\text{A}$; $V_{CE}=5\text{V}$; $f=5\text{MHz}$		8		MHz
C_{ob}	Output capacitance	$I_E=0$; $V_{CB}=10\text{V}$, $f=1\text{MHz}$		70		pF

◆ h_{FE} Classifications

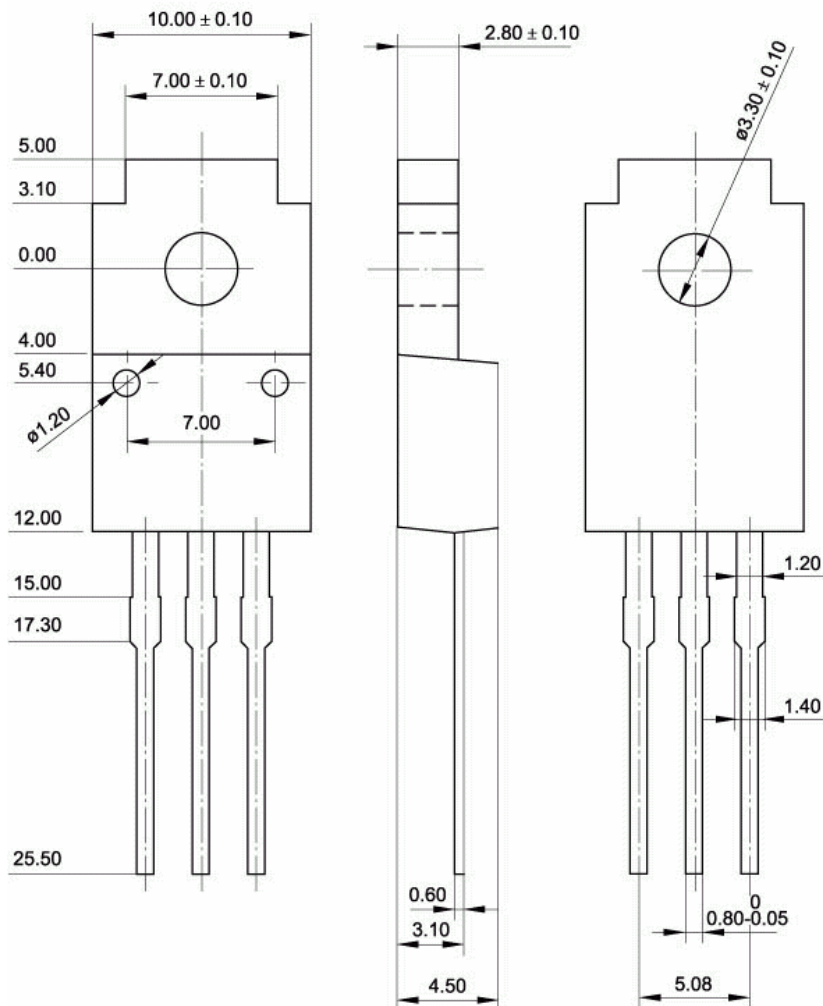
E	F
100-200	160-320

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PACKAGE OUTLINE

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Fig.2 Outline dimensions (unindicated tolerance: ± 0.15 mm)