

Silicon NPN Power Transistors

2SD1889

DESCRIPTION

www.datasheet4u.com

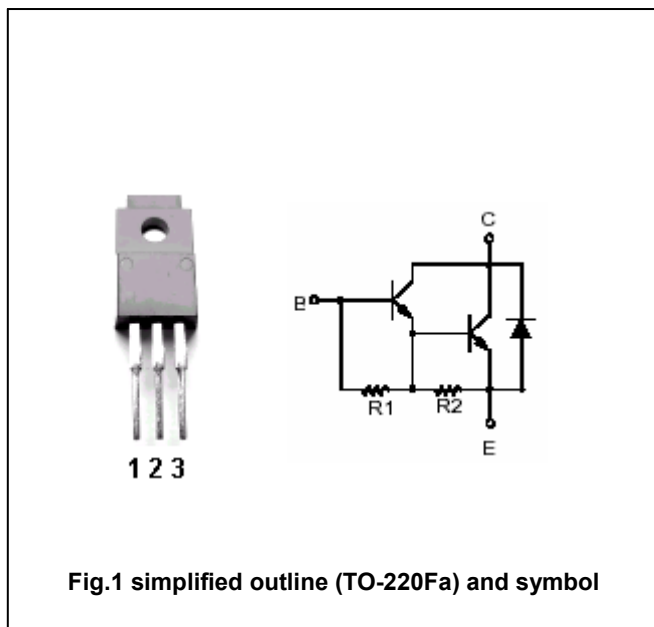
- With TO-220Fa package
- DARLINGTON
- Complement to type 2SB1340
- High DC current gain

APPLICATIONS

- Low frequency power amplification

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	120	V
V_{CEO}	Collector -emitter voltage	Open base	120	V
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current		6	A
I_{CM}	Collector current-peak		10	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	$^\circ\text{C}$

Silicon NPN Power Transistors

2SD1889

CHARACTERISTICS

www.datasheet4u.com

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

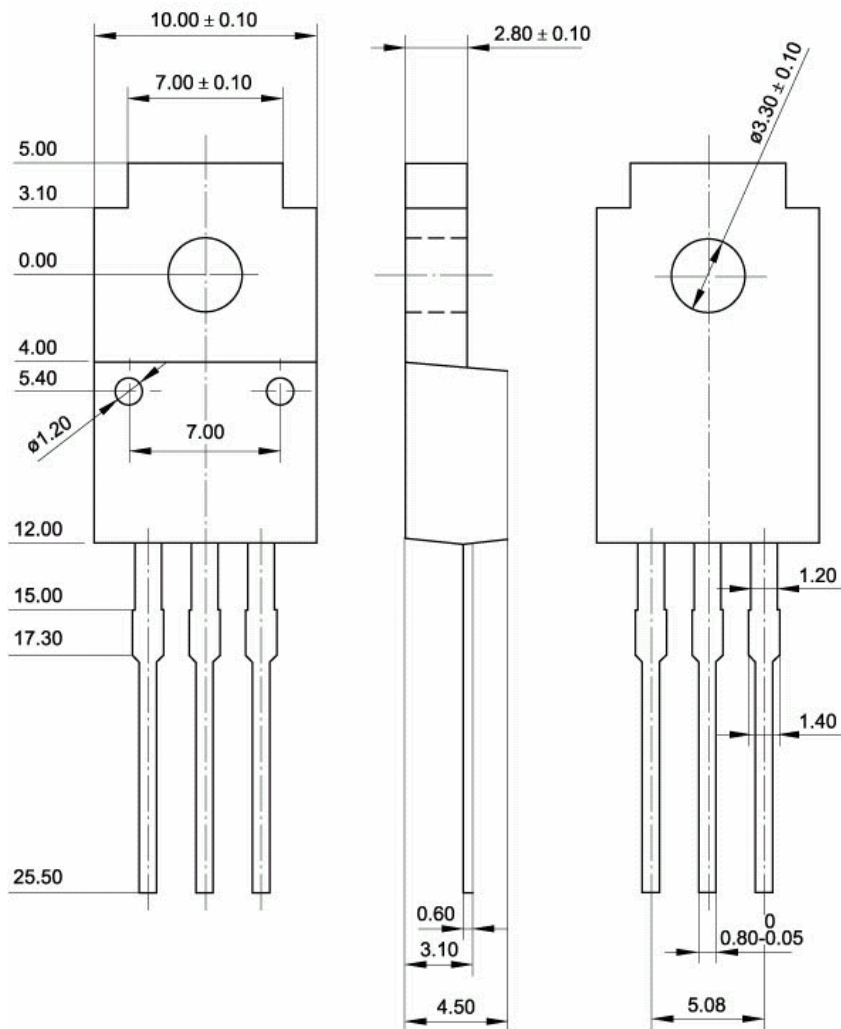
SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C=50\mu\text{A}; I_E=0$	120			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=5\text{mA}; I_B=0$	120			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=3\text{A}; I_B=6\text{mA}$			1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=120\text{V}; I_E=0$			100	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=5\text{V}; I_C=0$			3.0	mA
h_{FE}	DC current gain	$I_C=2\text{A}; V_{CE}=3\text{V}$	2000		20000	
f_T	Transition frequency	$I_E=-0.2\text{A}; V_{CE}=5\text{V}; f=10\text{MHz}$		40		MHz
C_{OB}	Output capacitance	$I_E=0; V_{CB}=10\text{V}; f=1\text{MHz}$		50		pF

Silicon NPN Power Transistors

2SD1889

PACKAGE OUTLINE

www.datasheet4u.com

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