

Silicon NPN Power Transistors

2SD2399

DESCRIPTION

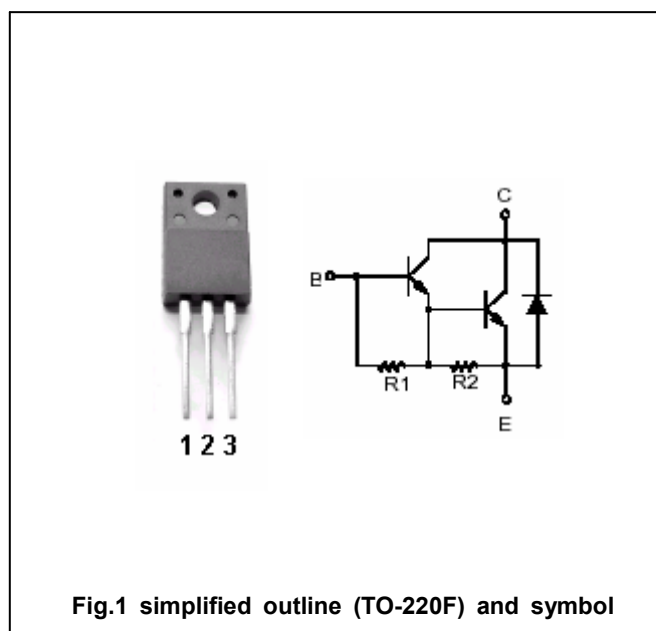
- With TO-220F package
- Complement to type 2SB1568
- High DC current gain.
- DARLINGTON

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	80	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		4	A
I_{CM}	Collector current-peak	Single pulse	6	A
P_C	Collector 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

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C=50\mu A; I_E=0$	80			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=1mA; I_B=0$	80			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=2A; I_B=4mA$			1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=80V; I_E=0$			0.1	mA
I_{EBO}	Emitter cut-off current	$V_{EB}=5V; I_C=0$			3.0	mA
h_{FE}	DC current gain	$I_C=2A; V_{CE}=3V$	1000		10000	
C_{OB}	Output capacitance	$I_E=0; V_{CB}=10V; f=1MHz$		35		pF
f_T	Transition frequency	$I_E=-0.2A; V_{CE}=5V; f=10MHz$		40		MHz

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PACKAGE OUTLINE

