

Silicon NPN Power Transistors

2SD1073

DESCRIPTION

- With TO-220 package
- High DC current gain
- DARLINGTON
- Low saturation voltage

APPLICATIONS

- Audio power amplifiers
- Relay and solenoid drivers
- Motor controls
- General purpose power amplifiers

PINNING

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

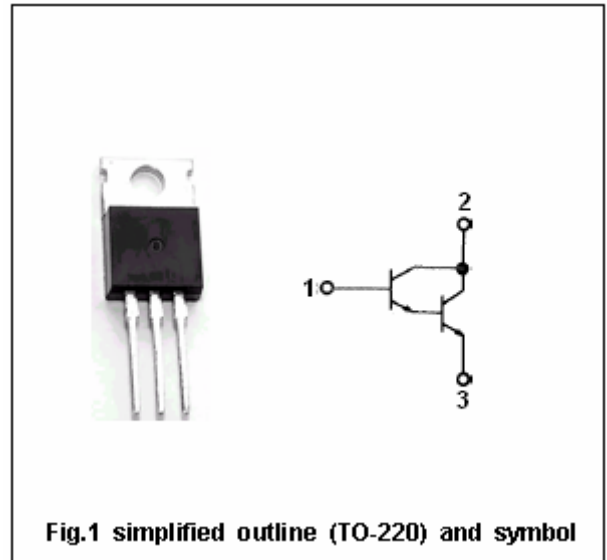


Fig.1 simplified outline (TO-220) and symbol

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	300	V
V_{CEO}	Collector-emitter voltage	Open base	250	V
V_{EBO}	Emitter-base voltage	Open collector	30	V
I_C	Collector current-continuous		4	A
I_B	Base current		0.3	A
P_C	Collector power dissipation	$T_C=25^\circ\text{C}$	60	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	CHARACTERISTICS	MAX	UNIT
$R\theta_{jc}$	Thermal resistance junction to case	2.0	$^\circ\text{C}/\text{W}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =10mA ; I _B =0	300			V
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =0.1mA ; I _E =0	250			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =10mA ; I _C =0	30			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =1A;I _B =10mA			1.5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =1A;I _B =10mA			2.0	V
I _{CBO}	Collector cut-off current	V _{CB} =300V; I _E =0			0.1	mA
I _{EBO}	Emitter cut-off current	V _{EB} =30V; I _C =0			0.1	mA
h _{FE}	DC current gain	I _C =2A ; V _{CE} =2V	1000			

