

Silicon NPN Power Transistors

2SD1026

DESCRIPTION

- With TO-3PN package
- High DC current gain
- DARLINGTON

PINNING

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

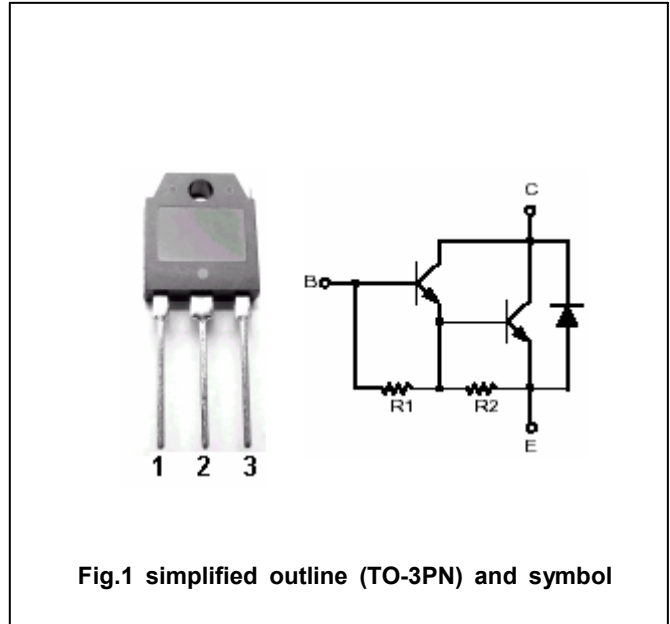


Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings (Ta=25℃)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	100	V
V_{CEO}	Collector-emitter voltage	Open base	100	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current-Continuous		15	A
I_{CM}	Collector current-Peak		22	A
I_B	Base current		1	A
I_{BM}	Base current-Peak		2	A
P_T	Total power dissipation	$T_C=25^\circ\text{C}$	100	W
T_j	Junction temperature		150	℃
T_{stg}	Storage temperature		-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
R_{thj-c}	Thermal resistance junction to case	1.25	℃/W

Silicon NPN Power Transistors

2SD1026

CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEsat}	Collector-emitter saturation voltage	I _C =10A; I _B =20mA			1.5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =10A; I _B =20mA			2.0	V
I _{CEO}	Collector cut-off current	V _{CE} =100V; I _B =0			0.1	mA
I _{CBO}	Collector cut-off current	V _{CB} =100V; I _E =0			0.1	mA
I _{EBO}	Emitter cut-off current	V _{EB} =7V; I _C =0			5	mA
h _{FE}	DC current gain	I _C =10A ; V _{CE} =3V	1500		30000	
f _T	Transition frequency	I _C =1.5A ; V _{CE} =10V		20		MHz
t _{on}	Turn-on time	I _C =15A; I _{B1} =I _{B2} =20mA R _L =2Ω; V _{BB2} =4V			2	μs
t _s	Storage time				5	μs
t _f	Fall time				3	μs

