

Silicon NPN Power Transistors

2SD1729

DESCRIPTION

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- With TO-3PN package
- Built-in damper diode
- High voltage ,high speed
- Wide area of safe operation

APPLICATIONS

- For horizontal deflection output applications

PINNING

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

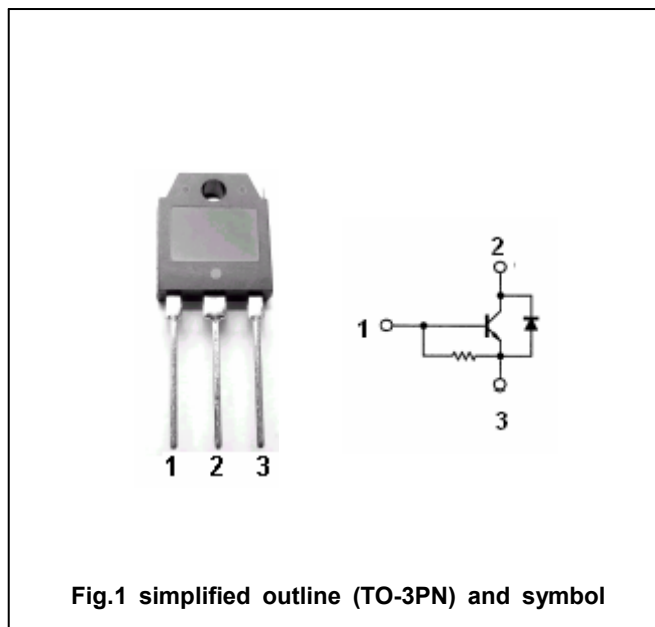


Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings (Ta=25℃)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	1500	V
V_{CEO}	Collector-emitter voltage	Open base	700	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current (DC)		3.5	A
I_{CM}	Collector current (Pulse)		10	A
I_B	Base current		1.5	A
P_C	Collector power dissipation	$T_C=25^\circ\text{C}$	60	W
T_j	Junction temperature		150	°C
T_{stg}	Storage temperature		-55~150	°C

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CHARACTERISTICS

Tj=25°C unless otherwise specified

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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=500mA; I_C=0$	7			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=3A; I_B=0.8A$			8.0	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=3A; I_B=0.8A$			1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=750V; I_E=0$			10	μA
		$V_{CB}=1500V; I_E=0$			1	mA
h_{FE}	DC current gain	$I_C=0.5A; V_{CE}=5V$	5		25	
f_T	Transition frequency	$I_C=0.5A; V_{CE}=10V$		2		MHz
V_F	Diode forward voltage	$I_F=-3.5A, I_B=0$			2.0	V

Switching times

t_s	Storage time	$I_C=3A; I_{B1}=0.8A$ $I_{B2}=-1.6A; V_{CC}=200V$		1.5		μs
t_f	Fall time			0.2		μs

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