Silicon NPN Power Transistors

2SD1415

DESCRIPTION

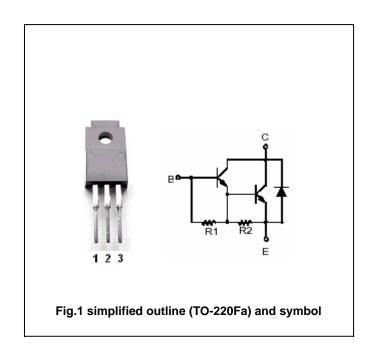
- With TO-220Fa package
- High DC current gain
- Low saturation voltage
- Complement to type 2SB1020
- DARLINGTON

APPLICATIONS

- · High power switching applications
- Hammer drive, pulse motor drive applications

PINNING

PIN	DESCRIPTION	
1	Base	
2	Collector	
3	Emitter	



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 5		V
Ic	Collector current		7	А
Ι _Β	Base current		0.2	А
P _C	Collector power dissipation	T _C =25°C	30	W
T _j	Junction temperature	ction temperature		$^{\circ}$
T _{stg}	Storage temperature		-55~150	$^{\circ}$

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CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT			
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =50mA; I _B =0	100			V			
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =3A ;I _B =6mA		0.9	1.5	V			
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =7A ;I _B =14mA		1.2	2.0	V			
V _{BEsat}	Base-emitter saturation voltage	I _C =3A ;I _B =6mA		1.5	2.5	V			
I _{CBO}	Collector cut-off current	V _{CB} =100V; I _E =0			100	μА			
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			3.0	mA			
h _{FE-1}	DC current gain	I _C =3A ; V _{CE} =3V	2000		15000				
h _{FE-2}	DC current gain	I _C =7A ; V _{CE} =3V	1000						
Switching times									
t _{on}	Turn-on time			0.8		μs			
t _{stg}	Storage time	I_{B1} =- I_{B2} =6mA V_{CC} =45V , R_L =15 Ω		3.0		μs			
t _f	Fall time			2.5		μs			

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PACKAGE OUTLINE

