

Inchange Semiconductor

Product Specification

Silicon NPN Power Transistors

2SC2833 2SC2833A

DESCRIPTION

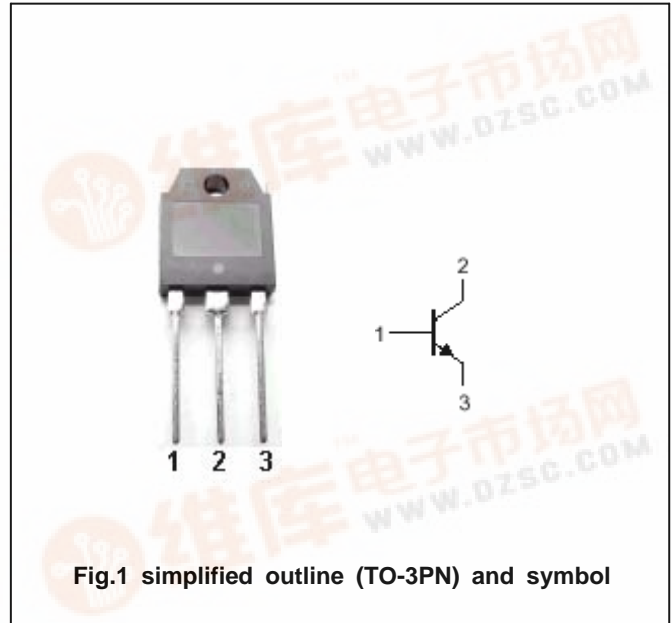
- With TO-3PN package
- High speed switching
- High V_{CBO}
- Low collector saturation voltage

APPLICATIONS

- For high speed switching applications

PINNING

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



ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}C$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2SC2833	800	V
		2SC2833A	900	
V_{CEO}	Collector-emitter voltage	Open base	500	V
V_{EBO}	Emitter-base voltage	Open collector	8	V
I_C	Collector current (DC)		5	A
I_{CM}	Collector current-peak		10	A
I_B	Base current (DC)		3	A
P_C	Collector power dissipation	$T_a=25^{\circ}C$	2.5	W
		$T_C=25^{\circ}C$	70	
T_j	Junction temperature		150	$^{\circ}C$
T_{stg}	Storage temperature		-55~150	$^{\circ}C$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =0.2A ; L=25mH	500			V
V _{CE(sat)}	Collector-emitter saturation voltage	I _C =3A ; I _B =0.6A			1.0	V
V _{BE(sat)}	Base-emitter saturation voltage	I _C =3A ; I _B =0.6A			1.5	V
I _{CBO}	Collector cut-off current	2SC2833			0.1	mA
		2SC2833A				
I _{EBO}	Emitter cut-off current	V _{EB} =5V ; I _C =0			0.1	mA
h _{FE-1}	DC current gain	I _C =0.1A ; V _{CE} =5V	15			
h _{FE-2}	DC current gain	I _C =3A ; V _{CE} =5V	8			
f _T	Transition frequency	I _C =0.5A ; V _{CE} =10V ; f=1MHz		3		MHz

Switching times

t _{on}	Turn-on time	2SC2833				1.0	μs
		2SC2833A				1.2	
t _s	Storage time		I _C =3.0A ; V _{CC} =200V I _{B1} =0.6A , I _{B2} =-0.6A			3.0	μs
t _f	Fall time	2SC2833				1.0	μs
		2SC2833A	1.2				

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PACKAGE OUTLINE

