

## Silicon NPN Power Transistors

2SD1168

**DESCRIPTION**

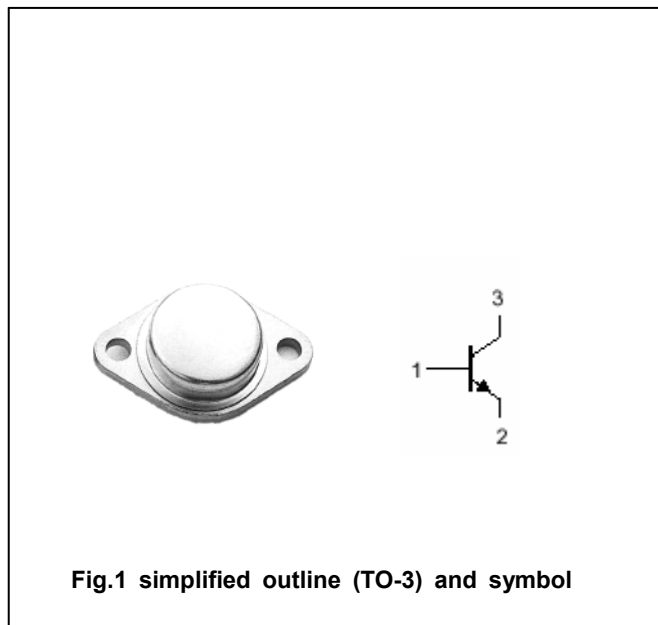
- With TO-3 package
- High voltage ,high speed
- Wide area of safe operation

**APPLICATIONS**

- For switching regulator applications

**PINNING(see fig.2)**

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

**Absolute maximum ratings( $T_a = \square$ )**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	1500	V
$V_{CEO}$	Collector-emitter voltage	Open base	800	V
$V_{EBO}$	Emitter-base voltage	Open collector	5	V
$I_C$	Collector current		5	A
$I_{CM}$	Collector current-peak		10	A
$P_C$	Collector power dissipation	$T_C = 25 \square$	50	W
$T_j$	Junction temperature		150	$\square$
$T_{stg}$	Storage temperature		-65~150	$\square$

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## CHARACTERISTICS

T<sub>j</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CER(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =5A; R <sub>BE</sub> =10Ω; L=2mH	800			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =1mA; I <sub>C</sub> =0	5			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =2 A; I <sub>B</sub> =1A			1.0	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =2 A; I <sub>B</sub> =1A			1.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =750V; I <sub>E</sub> =0			0.1	mA
		V <sub>CB</sub> =1500V; I <sub>E</sub> =0			1.0	
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =1A ; V <sub>CE</sub> =4V	9		25	
t <sub>f</sub>	Fall time	I <sub>C</sub> =1.5 A; I <sub>B1</sub> =0.2A; I <sub>B2</sub> =-0.7A			0.5	μs
t <sub>s</sub>	Storage time			2		μs

◆ h<sub>FE</sub> Classifications

Q	P
9-18	15-25

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PACKAGE OUTLINE

