

## Silicon NPN Power Transistors

## 2SD733 2SD733K

## DESCRIPTION

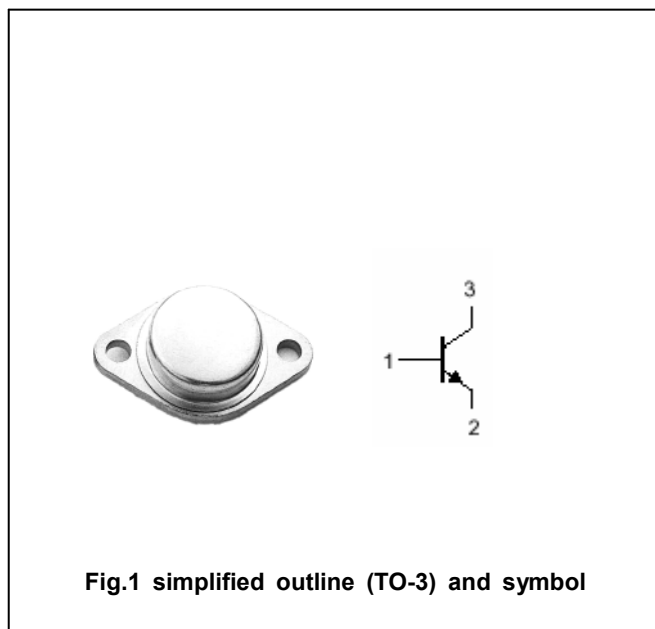
- With TO-3 package
- Complement to type 2SB697/697K
- High power dissipation

## APPLICATIONS

- Power amplifier applications
- Recommended for high-power high-fidelity audio frequency amplifier output stage

## 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	2SD733	160	V
		2SD733K	180	
$V_{CEO}$	Collector-emitter voltage	2SD733	140	V
		2SD733K	160	
$V_{EBO}$	Emitter-base voltage	Open collector	6	V
$I_C$	Collector current		12	A
$I_{CM}$	Collector current-peak		20	A
$P_C$	Collector power dissipation	$T_C = 25 \square$	100	W
$T_j$	Junction temperature		150	$\square$
$T_{stg}$	Storage temperature		-40~150	$\square$

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## CHARACTERISTICS

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

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	2SD733	I <sub>C</sub> =50mA ; I <sub>B</sub> =0	140			V
		2SD733K		160			
V <sub>(BR)CBO</sub>	Collector-emitter breakdown voltage	2SD733	I <sub>C</sub> =5mA ; I <sub>E</sub> =0	160			V
		2SD733K		180			
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage		I <sub>E</sub> =5mA ; I <sub>C</sub> =0	6			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage		I <sub>C</sub> =6A ; I <sub>B</sub> =0.6A		0.7	2.5	V
V <sub>BE</sub>	Base-emitter on voltage		I <sub>C</sub> =1A ; V <sub>CE</sub> =5V			1.5	V
I <sub>CBO</sub>	Collector cut-off current		V <sub>CB</sub> =80V ; I <sub>E</sub> =0			0.1	mA
I <sub>EBO</sub>	Emitter cut-off current		V <sub>EB</sub> =4V ; I <sub>C</sub> =0			0.1	mA
h <sub>FE-1</sub>	DC current gain		I <sub>C</sub> =1A ; V <sub>CE</sub> =-5V	40		320	
h <sub>FE-2</sub>	DC current gain		I <sub>C</sub> =5A ; V <sub>CE</sub> =5V	20			
f <sub>T</sub>	Transition frequency		I <sub>C</sub> =1A ; V <sub>CE</sub> =5V		15		MHz

◆ h<sub>FE-1</sub> Classifications

C	D	E	F
40-80	60-120	100-200	160-320

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PACKAGE OUTLINE



Fig.2 outline dimensions (unindicated tolerance:±0.1mm)