

## Silicon NPN Power Transistors

2SC2681

## DESCRIPTION

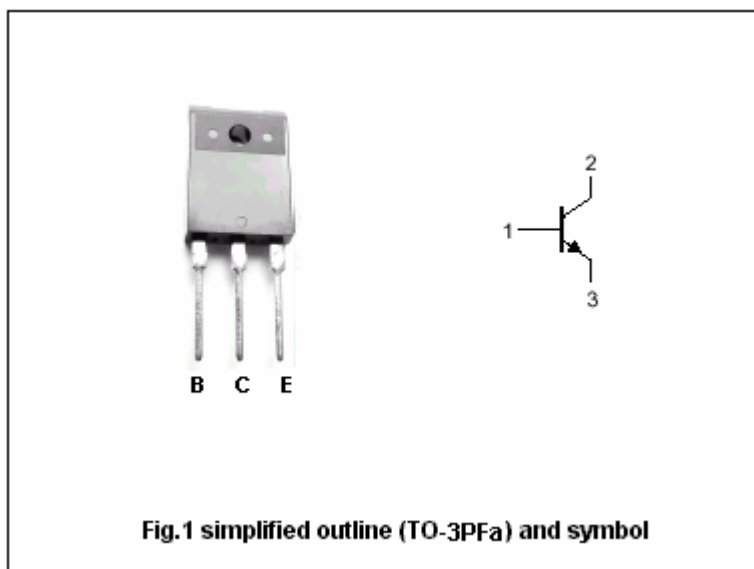
- With TO-3PFa package
- Complement to type 2SA1141
- High transition frequency

## APPLICATIONS

- Audio frequency power amplifier
- High frequency power amplifier

## PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

Absolute maximum ratings( $T_a=25^\circ\text{C}$ )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	115	V
$V_{CEO}$	Collector-emitter voltage	Open base	115	V
$V_{EBO}$	Emitter-base voltage	Open collector	5	V
$I_C$	Collector current		10	A
$I_{CM}$	Collector current-peak		15	A
$P_C$	Collector power dissipation	$T_C=25^\circ\text{C}$	100	W
		$T_a=25^\circ\text{C}$	2	
$T_j$	Junction temperature		150	$^\circ\text{C}$
$T_{stg}$	Storage temperature		-55~150	$^\circ\text{C}$

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## CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEsat}$	Collector-emitter saturation voltage	$I_C=4.5A$ ; $I_B=0.45A$		0.6	1.5	V
$V_{BE}$	Base-emitter on voltage	$I_C=4.5A$ ; $V_{CE}=2V$		1.2	2.0	V
$I_{CBO}$	Collector cut-off current	$V_{CB}=80V$ ; $I_E=0$			50	$\mu A$
$I_{EBO}$	Emitter cut-off current	$V_{EB}=5V$ ; $I_C=0$			50	$\mu A$
$h_{FE-1}$	DC current gain	$I_C=1A$ ; $V_{CE}=2V$	60		200	
$h_{FE-2}$	DC current gain	$I_C=4.5A$ ; $V_{CE}=2V$	40			
$C_{OB}$	Output capacitance	$I_E=0$ ; $V_{CB}=10V$ ; $f=1MHz$		230		pF
$f_T$	Transition frequency	$I_C=1A$ ; $V_{CE}=2V$		80		MHz

◆  $h_{FE-1}$  classifications

R	Q
60-120	100-200

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