



# SUR541EF

NPN Epitaxial Planar Silicon Transistor

## Description

- Digital transistor

## Features

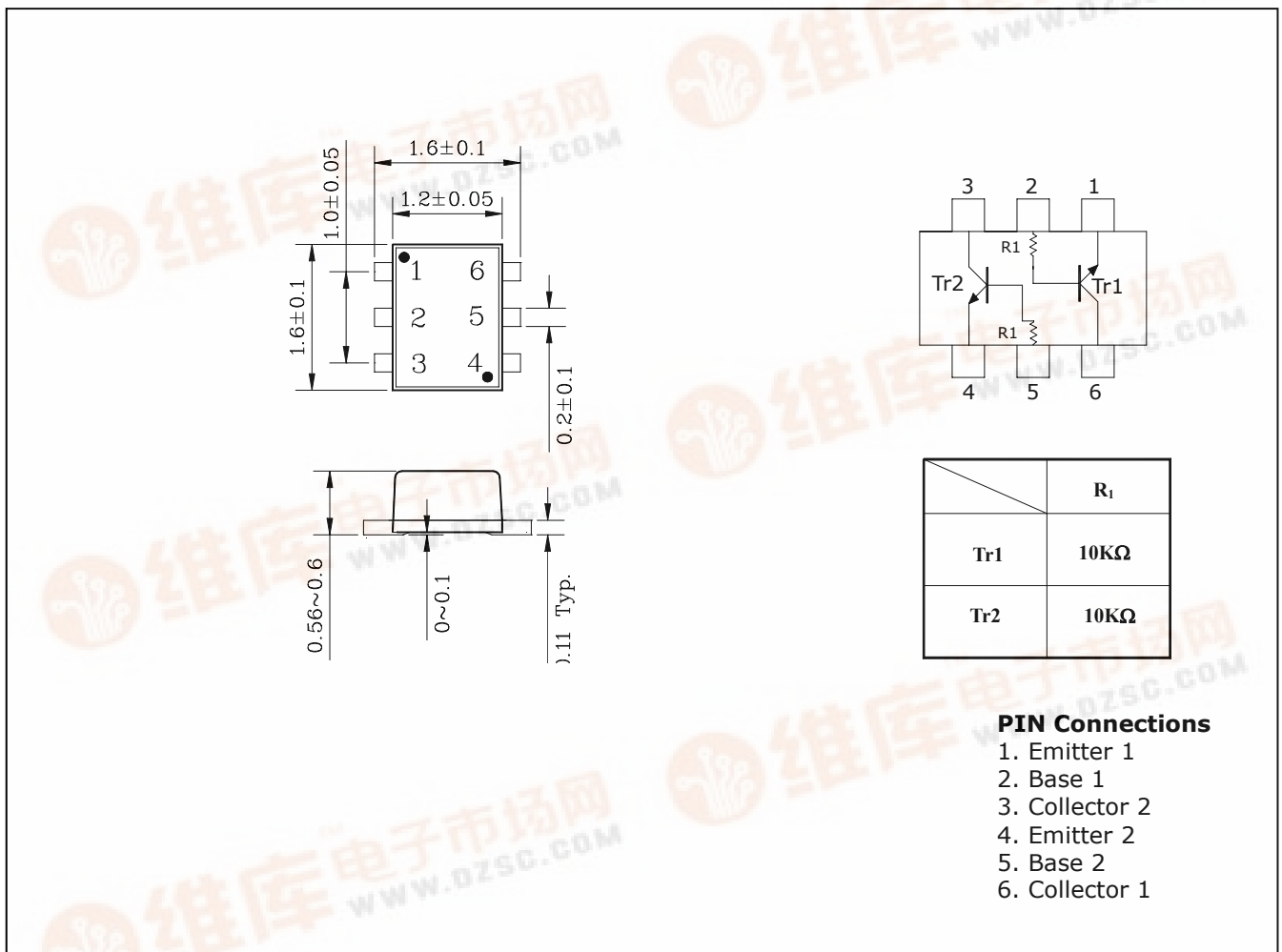
- Two SRC1211 chips in SOT-563F package
- With built-in bias resistors

## Ordering Information

Type NO.	Marking	Package Code
SUR541EF	JW	SOT-563F

## Outline Dimensions

unit : mm



# SUR541EF

## Absolute maximum ratings (Tr1, Tr2)

Ta=25°C

Characteristic	Symbol	Ratings	Unit
Collector-Base Voltage	V <sub>CB0</sub>	50	V
Collector-Emitter Voltage	V <sub>CE0</sub>	50	
Emitter-Base Voltage	V <sub>EBO</sub>	5	V
Collector Current	I <sub>C</sub>	100	mA
Power Dissipation	P <sub>D</sub>	100	mW
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>STG</sub>	-55 ~ 150	°C

## Electrical Characteristics(Tr1, Tr2 : NPN)

Ta=25°C

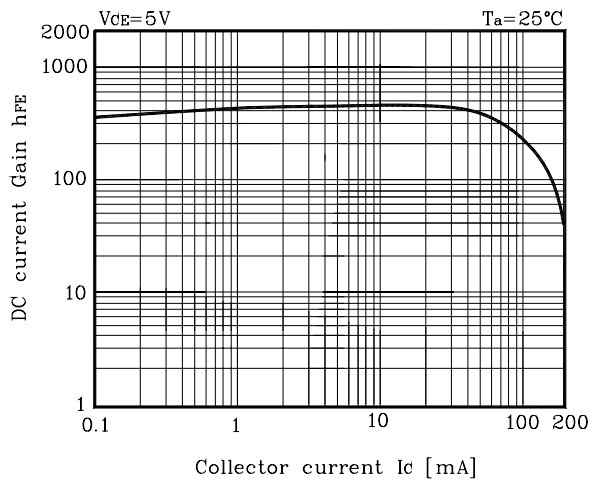
Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector Cut-off Current	I <sub>CB0</sub>	V <sub>CB</sub> =50V, I <sub>E</sub> =0	-	-	500	nA
Emitter Cut-off Current	I <sub>EBO</sub>	V <sub>EB</sub> =5V, I <sub>C</sub> =0	-	-	500	nA
DC Current Gain	h <sub>FE</sub>	V <sub>CE</sub> =5V, I <sub>C</sub> =1mA	120	-	-	-
Collector-Emitter Saturation Voltage	V <sub>CE(SAT)</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =0.5mA	-	0.1	0.3	V
Transition Frequency	f <sub>T</sub> *	V <sub>CE</sub> =10V, I <sub>C</sub> =5mA	-	250	-	MHz
Input Resistance	R <sub>1</sub>	-	-	10	-	KΩ
Collector Cut-off Current	I <sub>CB0</sub>	V <sub>CB</sub> =50V, I <sub>E</sub> =0	-	-	500	nA

\* : Characteristic of Transistor Only

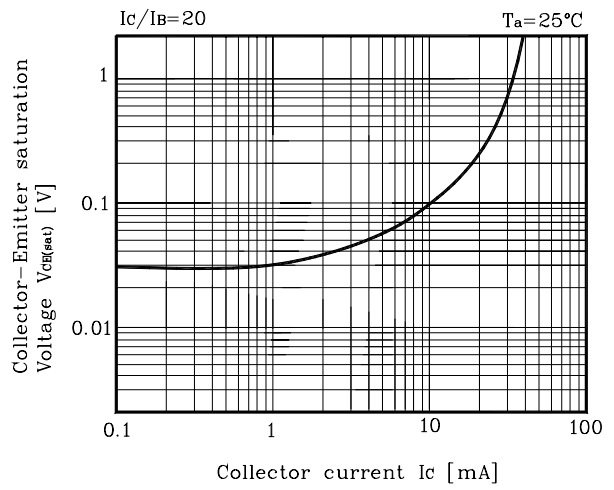
**Electrical Characteristic Curves**

Tr1, Tr2 : NPN

**Fig. 1  $h_{FE} - I_C$**



**Fig. 2  $V_{CE(SAT)} - I_C$**



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