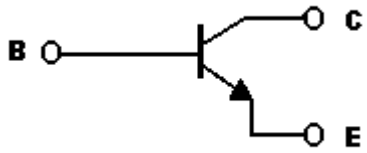
TFS2411

Description

- The TFS2411 is designed for general purpose amplifier applications. It is housed in the SOT-323/SC-70 package which is designed for low power surface mount applications.
- Low $V_{CE(sat)}$
- Low leakage current
- High cutoff frequency
- Complementary to TFS1036

Symbol

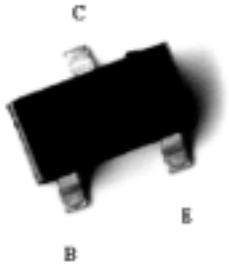
TFS2411



B：Base
C：Collector
E：Emitter

Outline

SOT-323



Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-Base Voltage	V_{CBO}	75	V
Collector-Emitter Voltage	V_{CEO}	40	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	600	mA
Power Dissipation @Ta=25℃ Derate above 25℃	Pd	150 (Note 1)	mW
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55~+150	°C

Note 1: when mounted on a FR-5 board with area measuring 1.0× 0.75× 0.062 in.

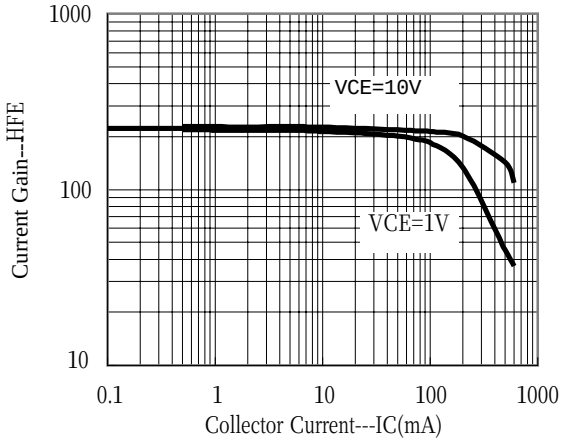
Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV_{CBO}	75	-	-	V	I_C=10μA
BV_{CEO}	40	-	-	V	I_C=1mA
BV_{EBO}	6	-	-	V	I_E=10μA
I_{CBO}	-	-	10	nA	V_{CB}=60V
I_{CEX}	-	-	10	nA	V_{CE}=60V,$V_{EB(off)}$=3V
I_{EBO}	-	-	100	nA	V_{EB}=3V
*$V_{CE(sat)}$1	-	-	0.3	V	I_C=150mA, I_B=15mA
*$V_{CE(sat)}$2	-	-	1.0	V	I_C=500mA, I_B=50mA
*$V_{BE(sat)}$1	-	-	1.2	V	I_C=150mA, I_B=15mA
*$V_{BE(sat)}$2	-	-	2.0	V	I_C=500mA, I_B=50mA
h_{FE}1	35	-	-	-	V_{CE}=10V, I_C=0.1mA
h_{FE}2	50	-	-	-	V_{CE}=10V, I_C=1mA
h_{FE}3	75	-	-	-	V_{CE}=10V, I_C=10mA
*h_{FE}4	100	-	300	-	V_{CE}=10V, I_C=150mA
*h_{FE}5	40	-	-	-	V_{CE}=10V, I_C=500mA
f_T	300	-	-	MHz	V_{CE}=20V, I_C=20mA, f=100MHz
Cob	-	-	8	pF	V_{CB}=10V, I_E=0A,f=1MHz

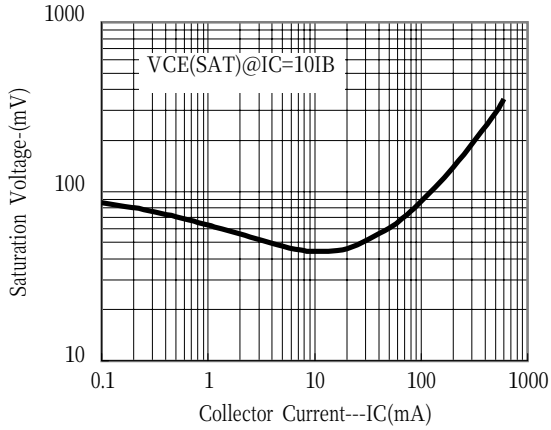
*Pulse Test: Pulse Width ≤380μs, Duty Cycle≤2%

Characteristic Curves

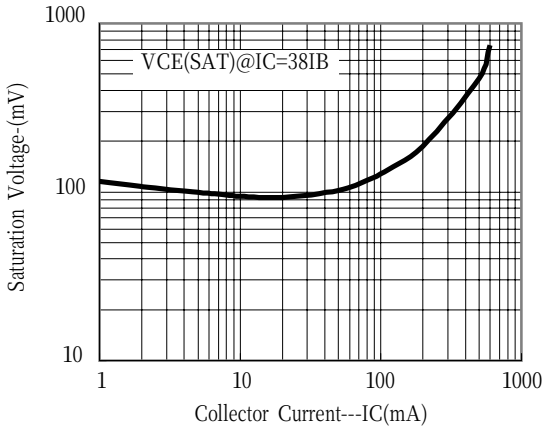
Current Gain vs Collector Current



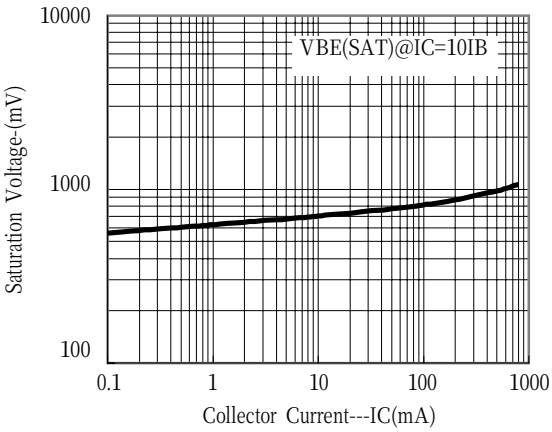
Saturation Voltage vs Collector Current



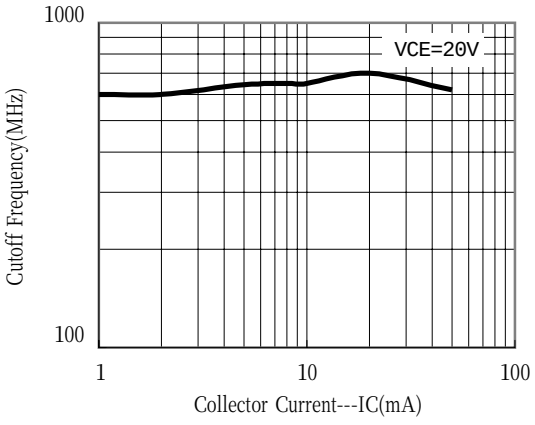
Saturation Voltage vs Collector Current



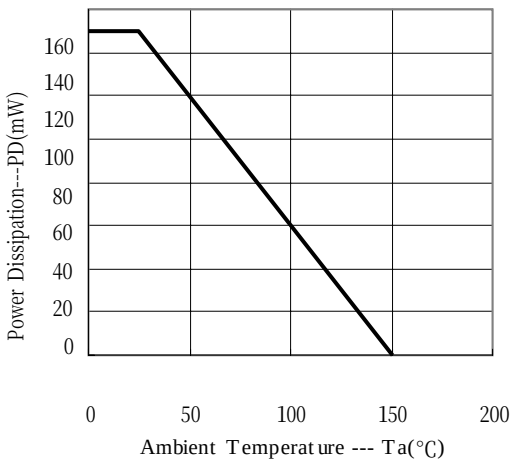
Saturation Voltage vs Collector Current



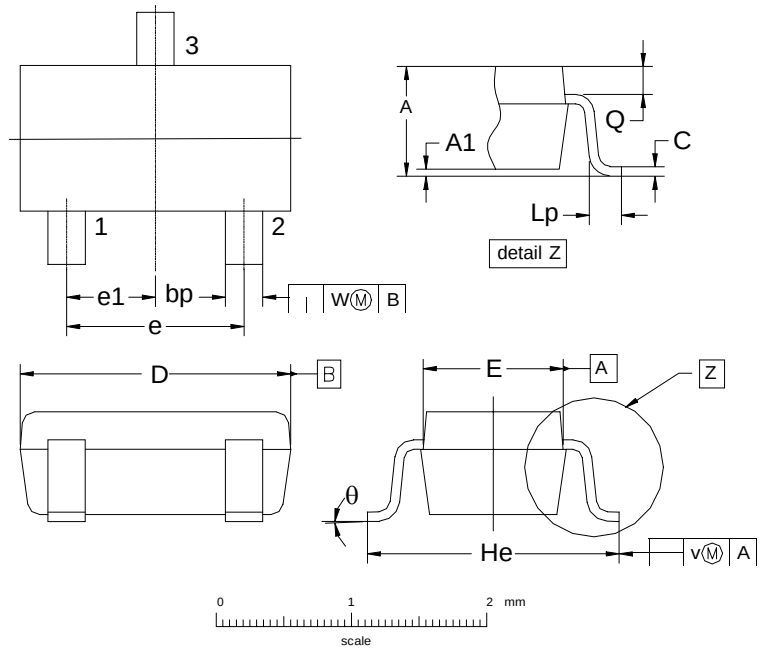
Cutoff Frequency vs Collector Current



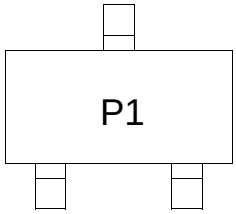
Power Derating Curve



SOT-323 Dimension



Marking:



3-Lead SOT-323 Plastic
Surface Mounted Package

Style: Pin 1.Base 2.Emitter 3.Collector

*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.0315	0.0433	0.80	1.10	e1	0.0256	-	0.65	-
A1	0.0000	0.0039	0.00	0.10	He	0.0787	0.0886	2.00	2.25
bp	0.0118	0.0157	0.30	0.40	Lp	0.0059	0.0177	0.15	0.45
C	0.0039	0.0098	0.10	0.25	Q	0.0051	0.0091	0.13	0.23
D	0.0709	0.0866	1.80	2.20	v	0.0079	-	0.2	-
E	0.0453	0.0531	1.15	1.35	w	0.0079	-	0.2	-
e	0.0512	-	1.3	-	θ	-	-	10°	0°

Notes: 1.Controlling dimension: millimeters.
2.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.
3.If there is any question with packing specification or packing method, please contact your local Tin Far sales office.

Material:

- Lead: 42 Alloy ; solder plating
- Mold Compound: Epoxy resin family, flammability solid burning class: UL94V-0