

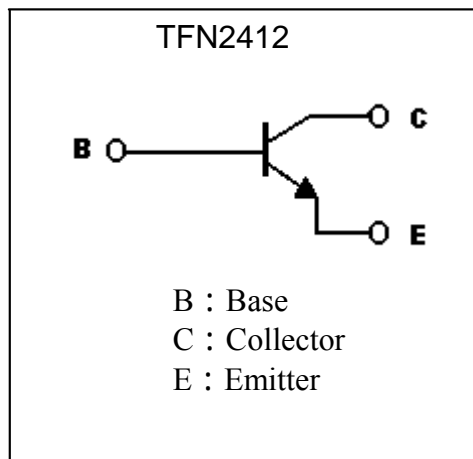
TFN2412

50V 150mA NPN TRANSISTOR

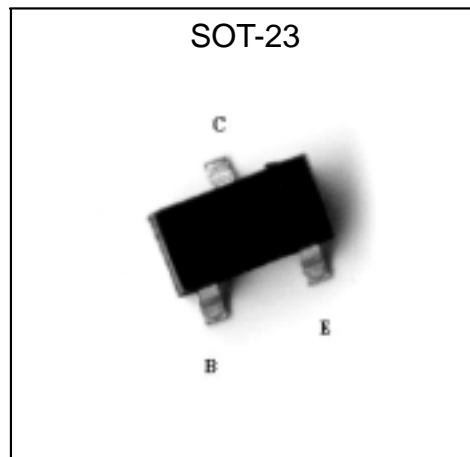
Description

- The TFN2412 is designed for using in driver stage of AF amplifier and general purpose switching application.
- Low Cob, typically Cob=2.0pF
- Complementary to TFN1037
- Pb-free package

Symbol



Outline



Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-Base Voltage	V _{CBO}	60	V
Collector-Emitter Voltage	V _{CEO}	50	V
Emitter-Base Voltage	V _{EBO}	7	V
Collector Current	I _C	150	mA
Power Dissipation (T _A =25°C)	P _D	225	mW
Thermal Resistance, Junction to Ambient	R _{θJA}	556	°C/W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55~+150	°C



Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV_{CBO}	60	-	-	V	$I_C=100\mu A$
BV_{CEO}	50	-	-	V	$I_C=1mA$
BV_{EBO}	7	-	-	V	$I_E=50\mu A$
I_{CBO}	-	-	100	nA	$V_{CB}=60V$
I_{EBO}	-	-	100	nA	$V_{EB}=7V$
$*V_{CE(sat)}$	-	0.2	0.4	V	$I_C=50mA, I_B=5mA$
$*h_{FE}$	120	-	820		$V_{CE}=6V, I_C=1mA$
f_T	80	180	-	MHz	$V_{CE}=12V, I_C=2mA, f=100MHz$
C_{ob}	-	2	3.5	pF	$V_{CB}=12V, f=1MHz$

*Pulse Test: Pulse Width $\leq 380\mu s$, Duty Cycles $\leq 2\%$

Classification Of h_{FE}

Rank	Q	R	S	T
Range	120~270	180~390	270~560	410~820

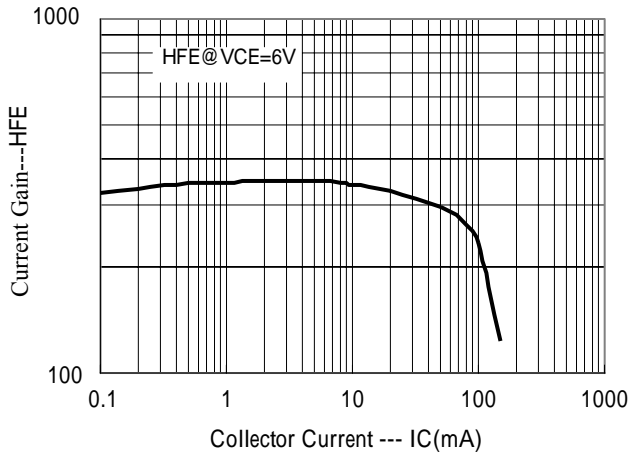
Ordering Information

Device	Package	Shipping	Marking
TFN2412	SOT-23 (Pb-free)	3000 pcs / Tape & Reel	C4

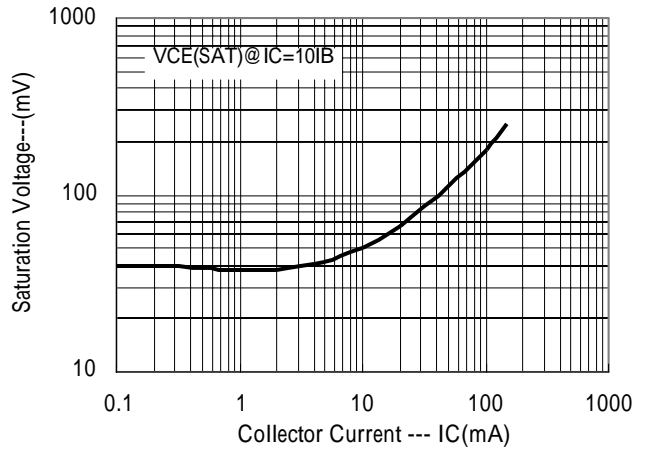


Characteristic Curves

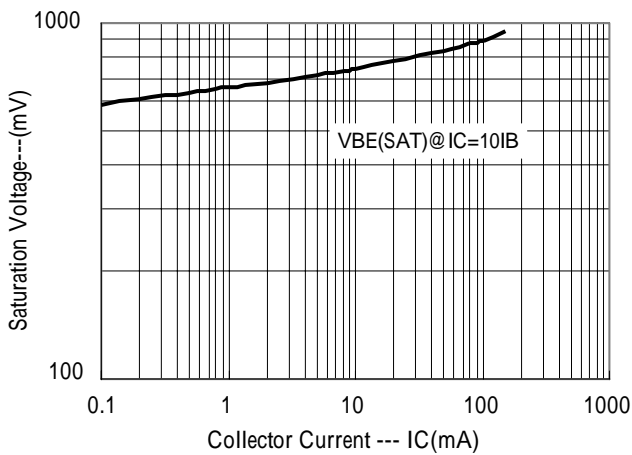
Current Gain vs Collector Current



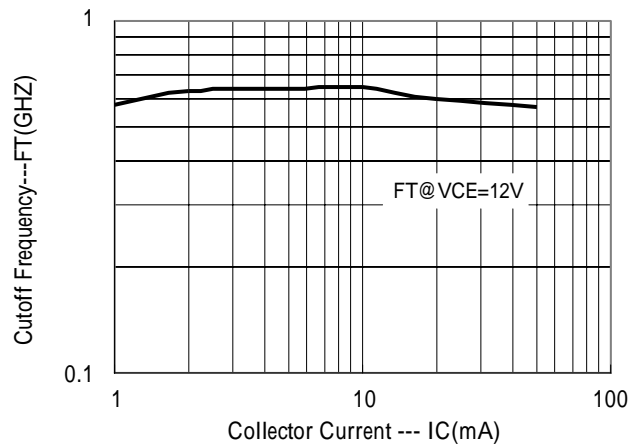
Saturation Voltage vs Collector Current



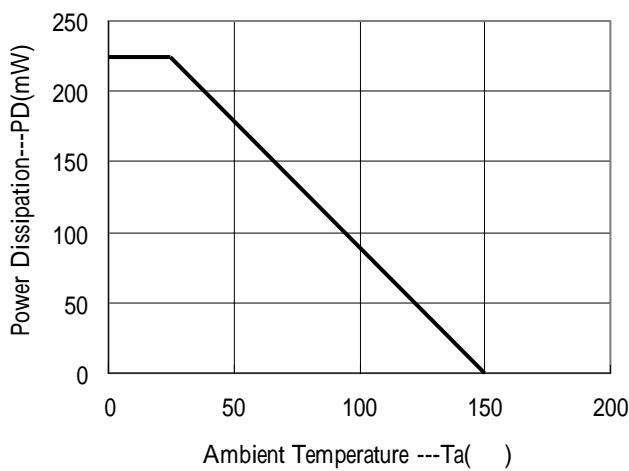
Saturation Voltage vs Collector Current



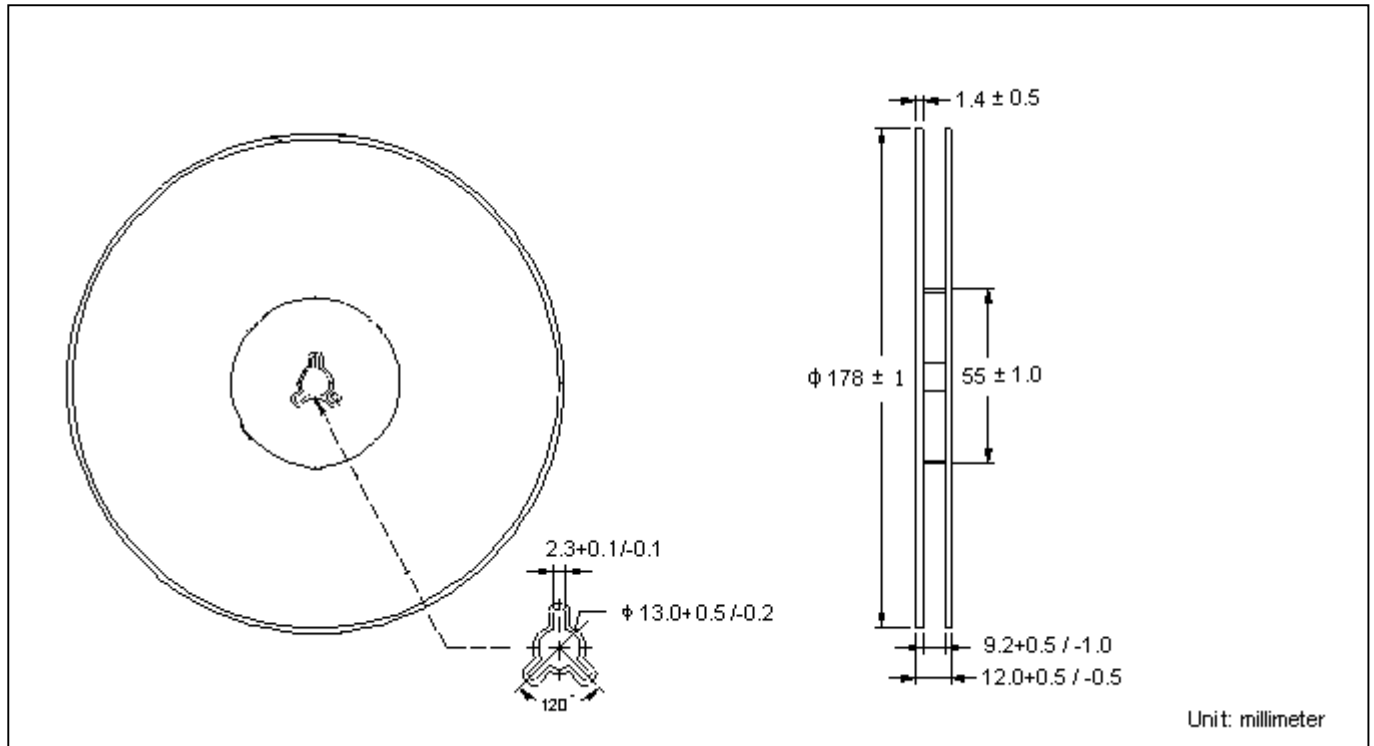
Cutoff Frequency vs Collector Current



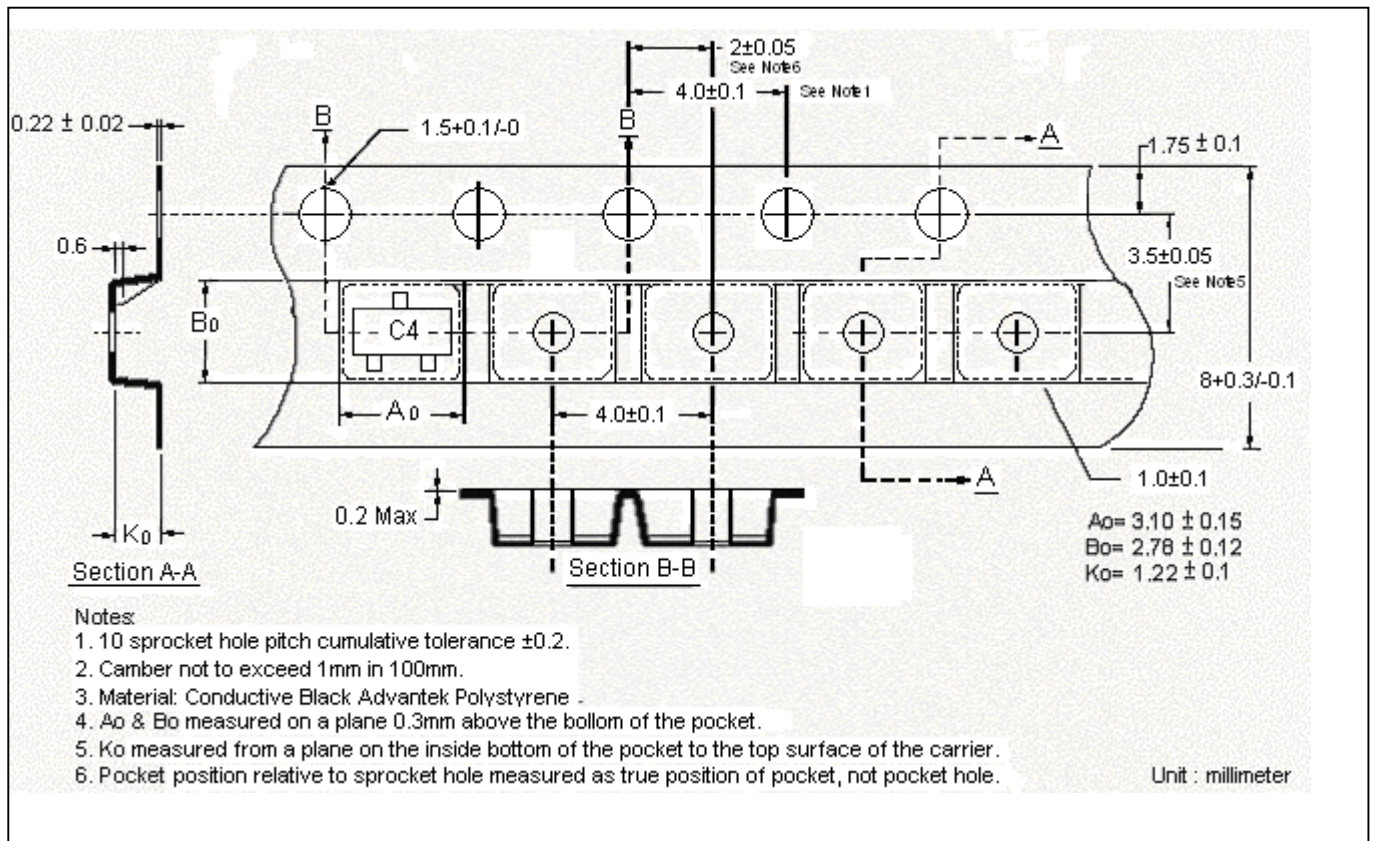
Power Derating Curve



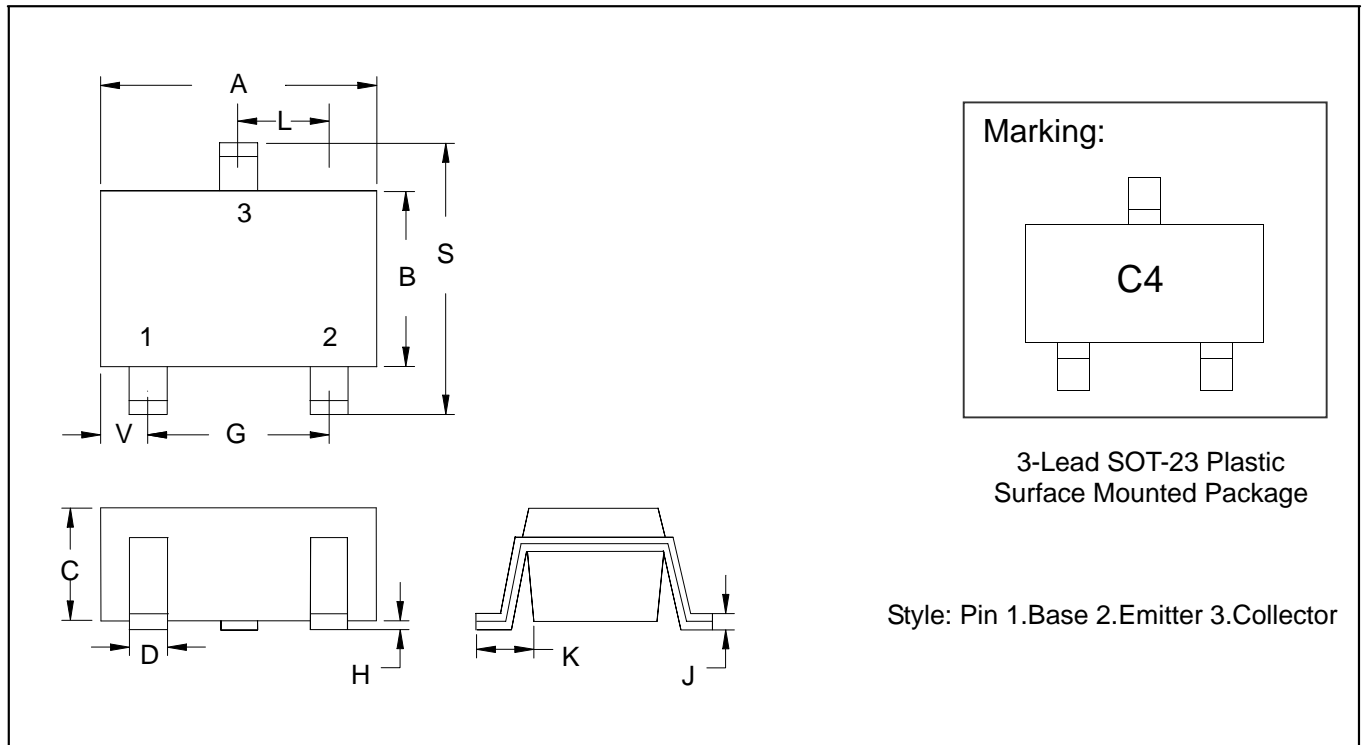
Reel Dimension



Carrier Tape Dimension



SOT-23 Dimension



*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1102	0.1204	2.80	3.04	J	0.0034	0.0070	0.085	0.177
B	0.0472	0.0630	1.20	1.60	K	0.0128	0.0266	0.32	0.67
C	0.0335	0.0512	0.89	1.30	L	0.0335	0.0453	0.85	1.15
D	0.0118	0.0197	0.30	0.50	S	0.0830	0.1083	2.10	2.75
G	0.0669	0.0910	1.70	2.30	V	0.0098	0.0256	0.25	0.65
H	0.0005	0.0040	0.013	0.10					

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 TinFar sales office.

Material:

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

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