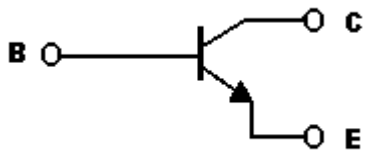
TFNA06

Description

- The TFNA06 is designed for use in general purpose amplification and switching application.
- High current , I_C = 0.5A
- Low $V_{CE(sat)}$, $V_{CE(sat)}$ = 0.25V(typ.) at I_C/I_B = 100mA/10mA
- Complementary to TFNA56.
- Pb-free package

Symbol

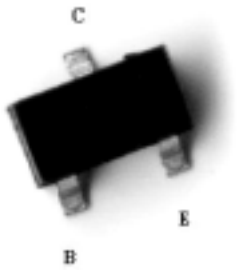
TFNA06



B：Base
C：Collector
E：Emitter

Outline

SOT-23



Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-Base Voltage	V_{CBO}	80	V
Collector-Emitter Voltage	V_{CEO}	80	V
Emitter-Base Voltage	V_{EBO}	4	V
Collector Current	I_C	500	mA
Power Dissipation	Pd	225	mW
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55~+150	°C

Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV_{CBO}	80	-	-	V	I_C=100μA
BV_{CEO}	80	-	-	V	I_C=1mA
BV_{EBO}	4	-	-	V	I_E=100μA
I_{CBO}	-	-	100	nA	V_{CB}=80V
I_{CEO}	-	-	100	nA	V_{CE}=60V
*$V_{CE(sat)}$	-	-	0.25	V	I_C=100mA, I_B=10mA
*$V_{BE(on)}$	-	-	1.2	V	V_{CE}=1V, I_C=100mA
*h_{FE}1	50	-	-	-	V_{CE}=1V, I_C=10mA
*h_{FE}2	50	-	-	-	V_{CE}=1V, I_C=100mA
f_T	100	-	-	MHz	V_{CE}=2V, I_C=10mA, f=100MHz

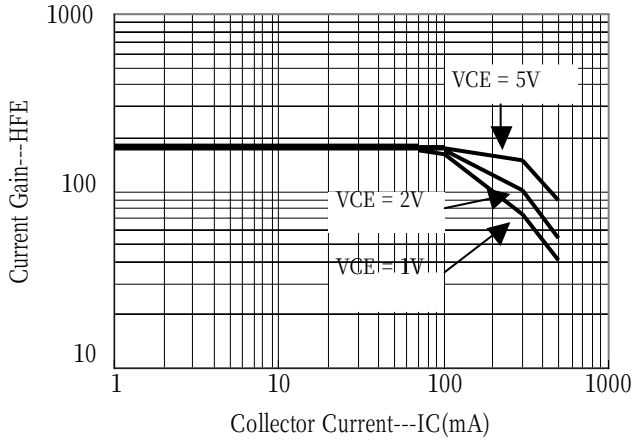
*Pulse Test: Pulse Width ≤380μs, Duty Cycle≤2%

Ordering Information

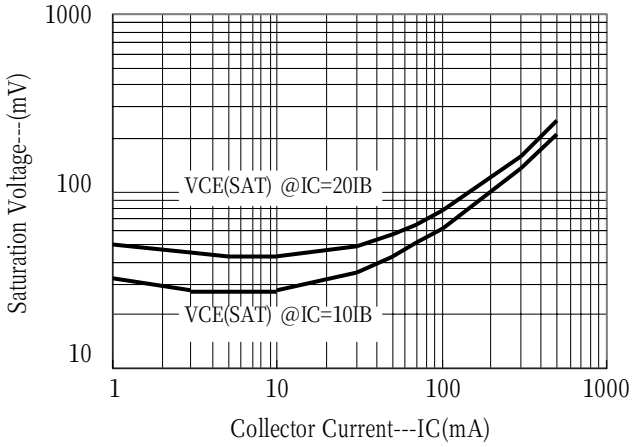
Device	Package	Shipping	Marking
TFNA06	SOT-23 (Pb-free)	3000 pcs / Tape & Reel	1G

Characteristic Curves

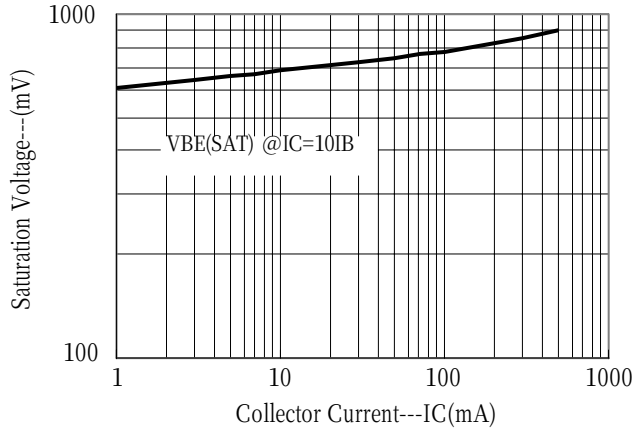
Current Gain vs Collector Current



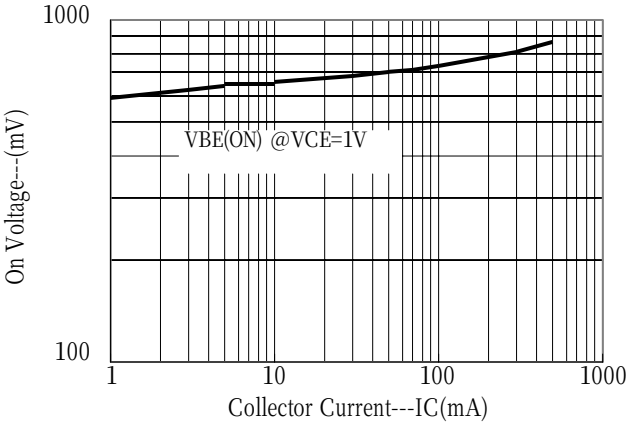
Saturation Voltage vs Collector Current



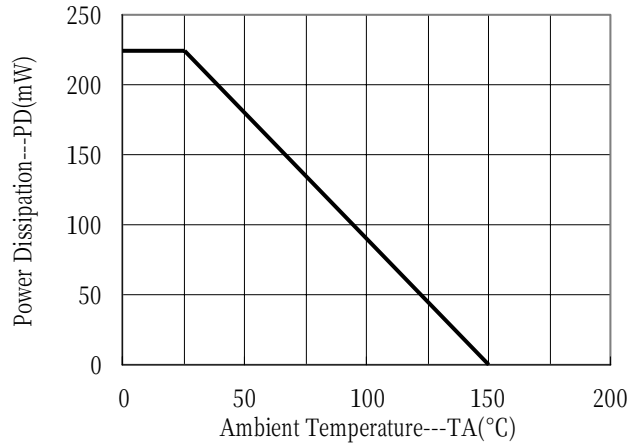
Saturation Voltage vs Collector Current



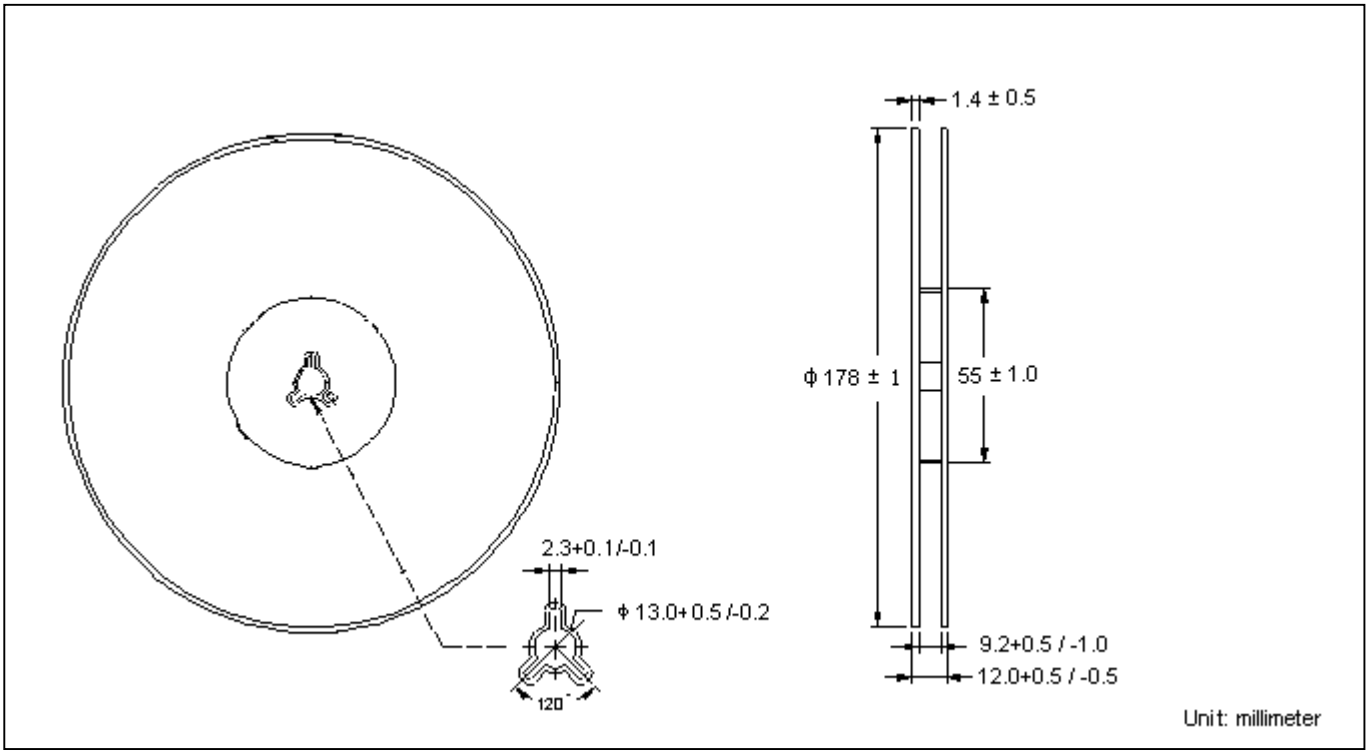
On Voltage vs Collector Current



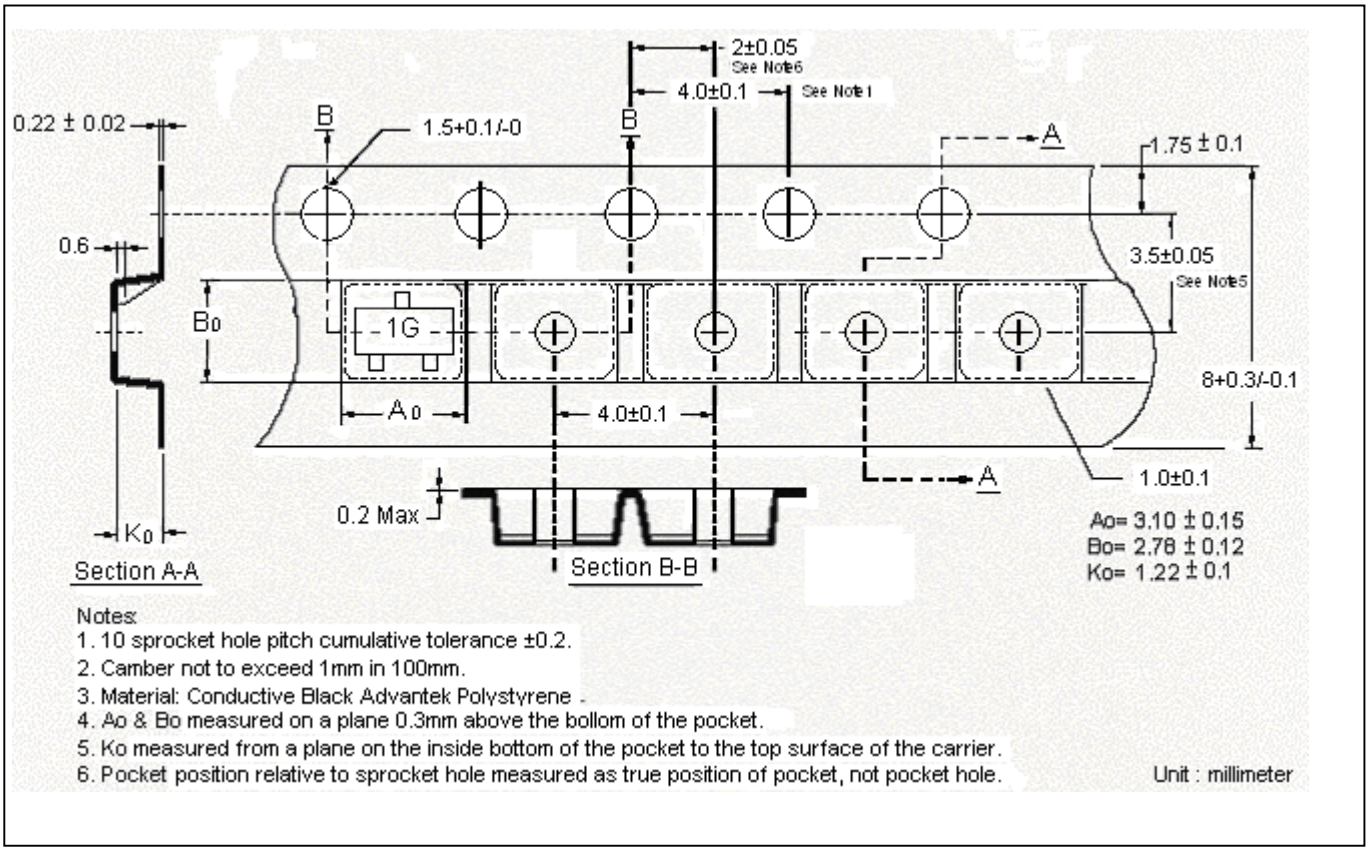
Power Derating Curve



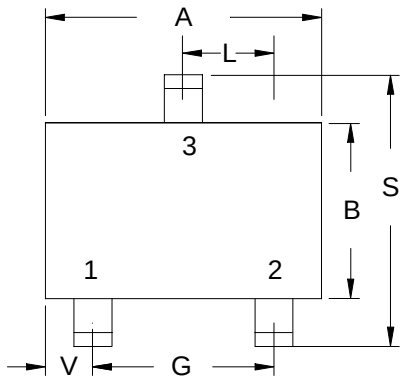
Reel Dimension

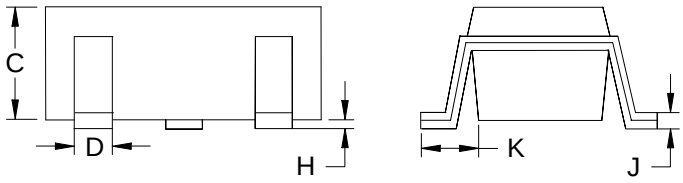


Carrier Tape Dimension

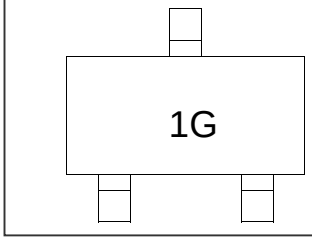


SOT-23 Dimension





Marking:



3-Lead SOT-23 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	0.1102	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 Tin Far sales office.

Material:

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