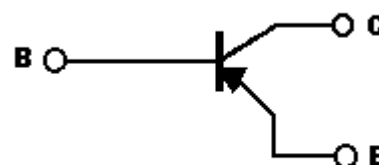
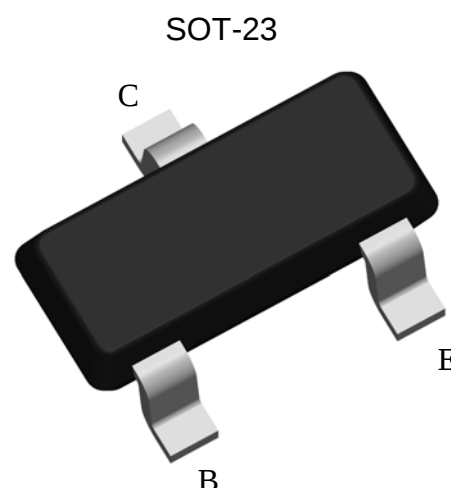


General Purpose PNP Epitaxial Planar Transistor

Description:

- The KWA1036 is designed for using in driver stage of AF amplifier and general purpose amplification.
- Large I_C , $I_{C(Max)} = -0.6A$
- Low $V_{CE(sat)}$, ideal for low-voltage operation.
- Pb-free lead plating and halogen-free package



B : Base
 C : Collector
 E : Emitter

Ordering Information

Device	Package	Shipping
KWA1036	SOT-23 (Pb-free lead plating and halogen-free package)	3000 pcs / tape & reel

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-Base Voltage	V _{CB0}	-60	V
Collector-Emitter Voltage	V _{CEO}	-60	V
Emitter-Base Voltage	V _{EB0}	-5	V
Collector Current	I _C	-0.6	A
Power Dissipation	P _d	225	mW
Thermal Resistance, Junction to Ambient	R _{θJA}	556	°C/W
Operating Junction Temperature Range	T _j	-55~+150	°C
Storage Temperature Range	T _{stg}	-55~+150	°C

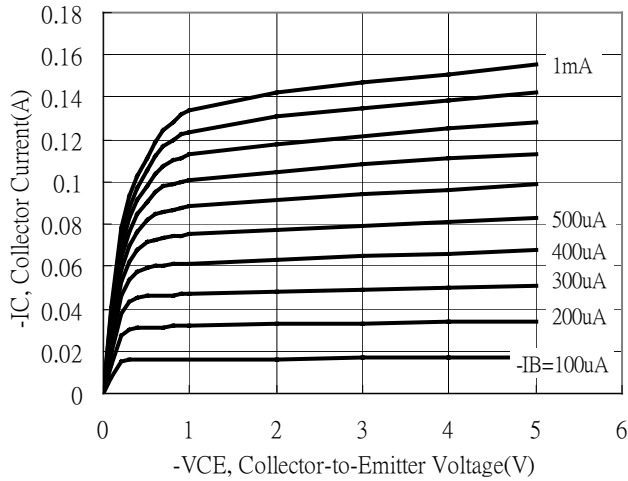
Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BV _{CB0}	-60	-	-	V	I _C =-10μA
BV _{CEO}	-60	-	-	V	I _C =-10mA
BV _{EB0}	-5	-	-	V	I _E =-10μA
IC _{BO}	-	-	-10	nA	V _{CB} =-50V
ICEX	-	-	-50	nA	V _{CE} =-30V, V _{EB} =-0.5V
*V _{CE(sat)} 1	-0.05	-	-0.4	V	I _C =-150mA, I _B =-15mA
*V _{CE(sat)} 2	-0.1	-	-0.75	V	I _C =-500mA, I _B =-50mA
*V _{BE(sat)} 1	-0.6	-	-0.95	V	I _C =-150mA, I _B =-15mA
*V _{BE(sat)} 2	-0.7	-	-1.3	V	I _C =-500mA, I _B =-50mA
h _{FE} 1	75	-	-	-	V _{CE} =-10V, I _C =-0.1mA
h _{FE} 2	100	-	-	-	V _{CE} =-10V, I _C =-1mA
h _{FE} 3	100	-	-	-	V _{CE} =-10V, I _C =-10mA
*h _{FE} 4	100	-	300	-	V _{CE} =-10V, I _C =-150mA
*h _{FE} 5	50	-	-	-	V _{CE} =-10V, I _C =-500mA
f _T	200	-	-	MHz	V _{CE} =-5V, I _C =-50mA, f=100MHz
C _{ob}	-	-	8	pF	V _{CB} =-10V, f=1MHz

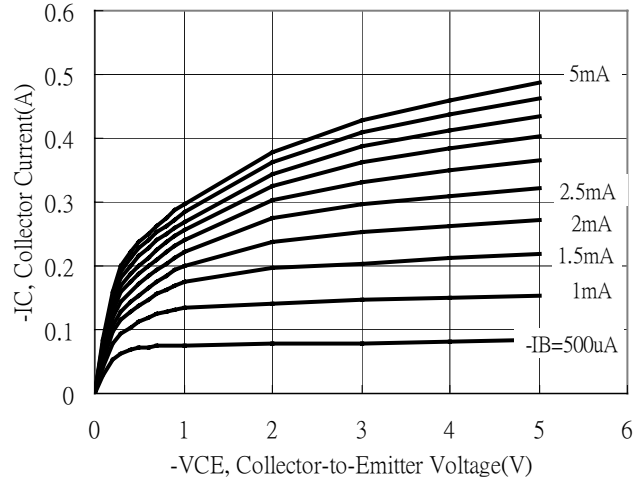
*Pulse Test: Pulse Width ≤380μs, Duty Cycle≤2%

Typical Characteristics

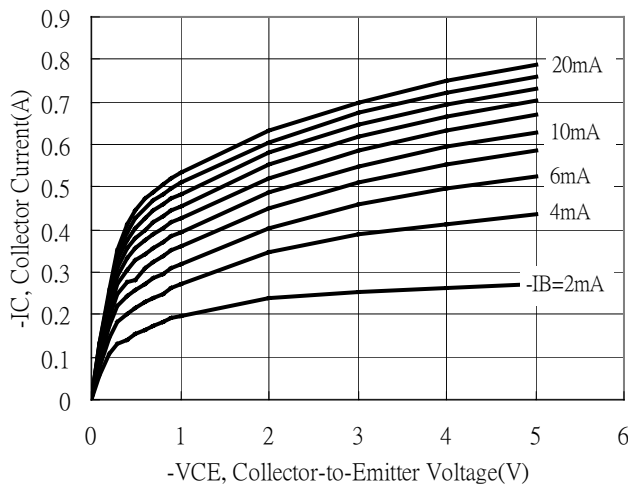
Emitter Grounded Output Characteristics



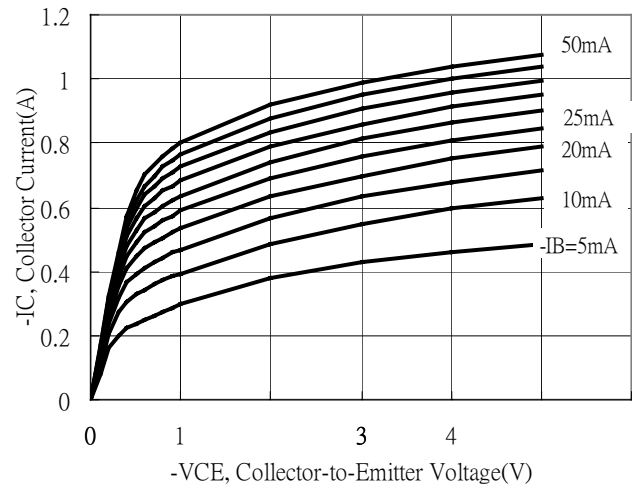
Emitter Grounded Output Characteristics



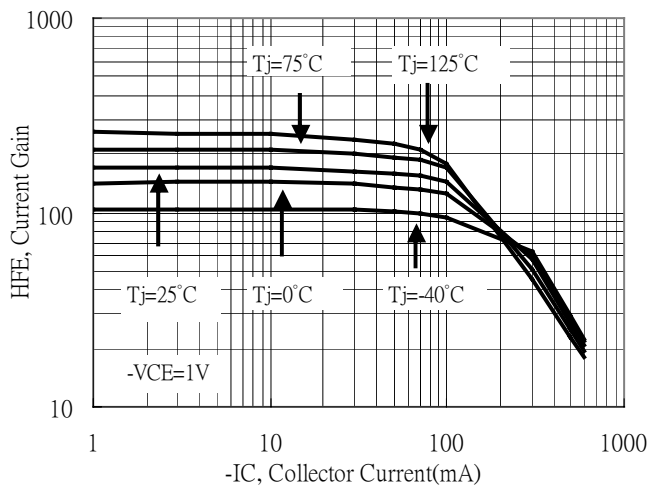
Emitter Grounded Output Characteristics



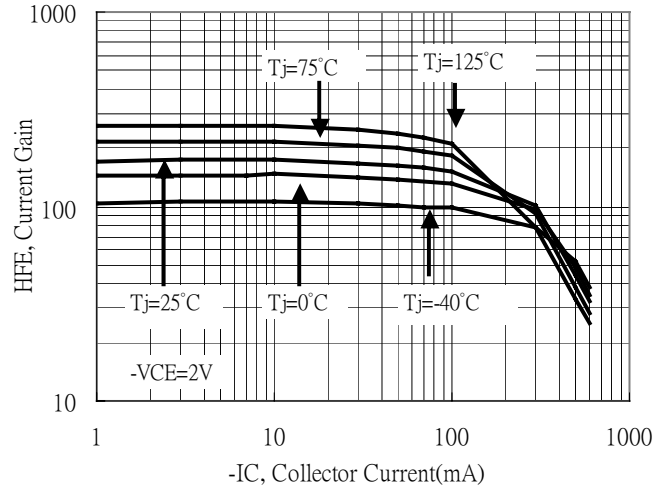
Emitter Grounded Output Characteristics



Current Gain vs Collector Current

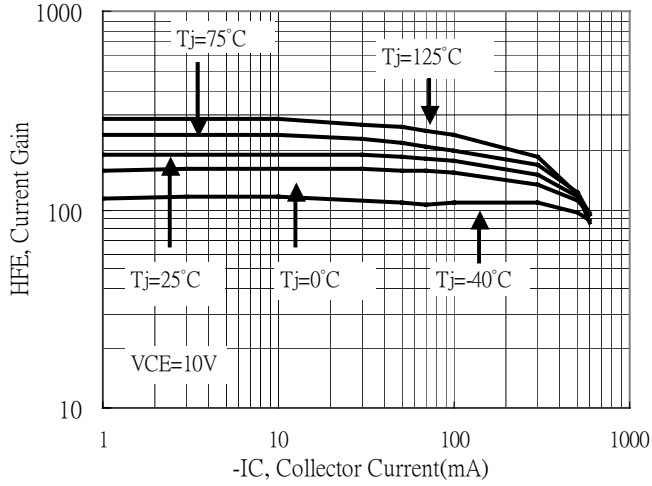


Current Gain vs Collector Current

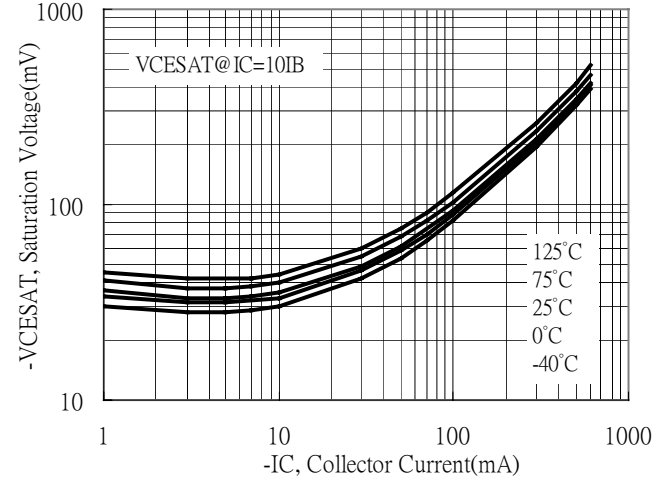


Typical Characteristics(Cont.)

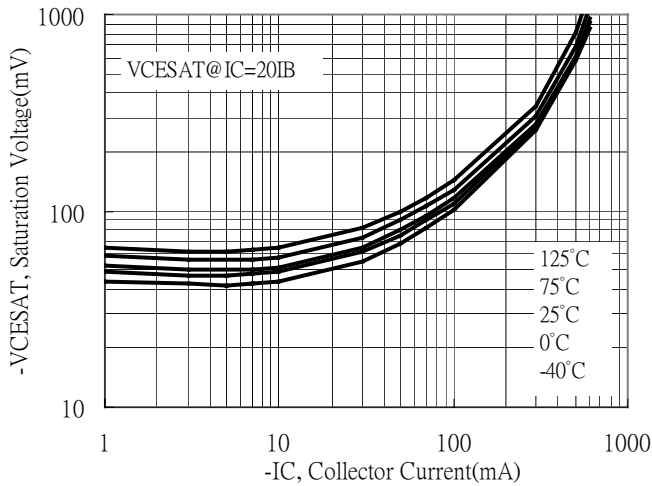
Current Gain vs Collector Current



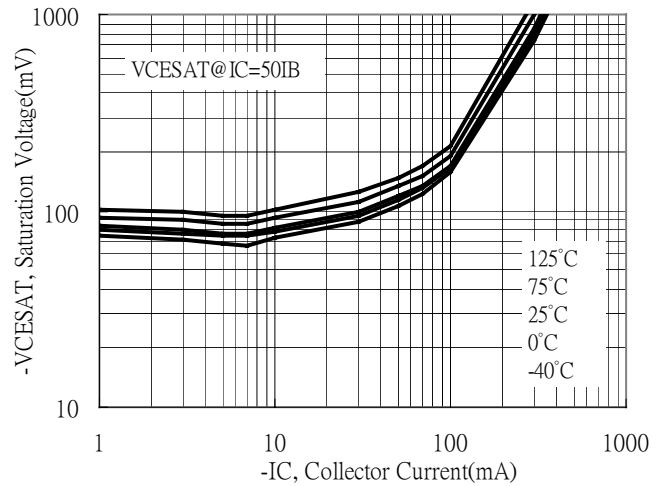
Saturation Voltage vs Collector Current



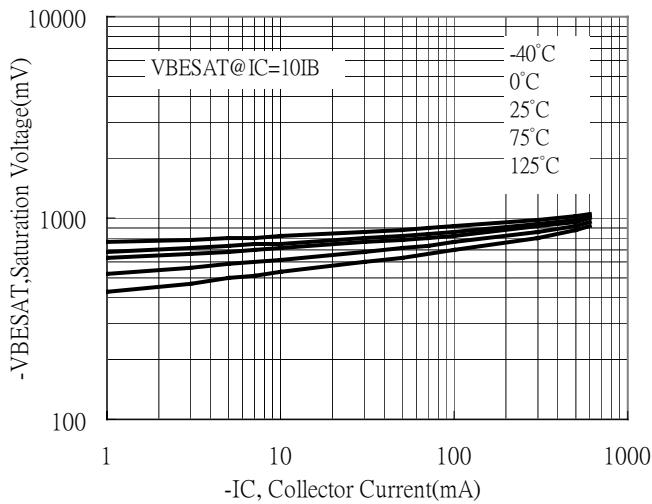
Saturation Voltage vs Collector Current



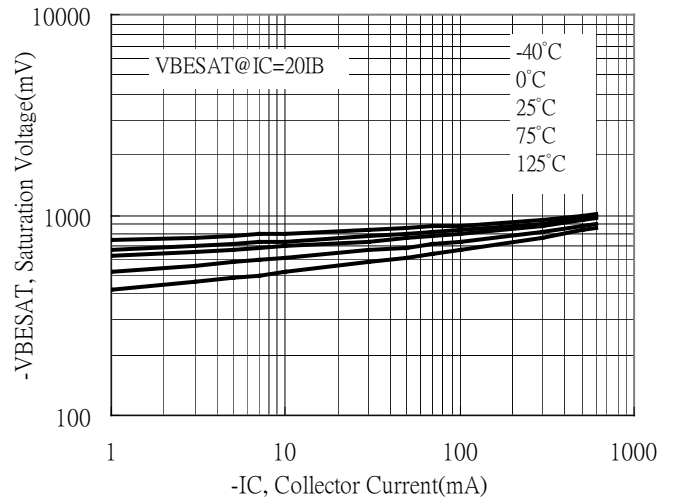
Saturation Voltage vs Collector Current



Saturation Voltage vs Collector Current

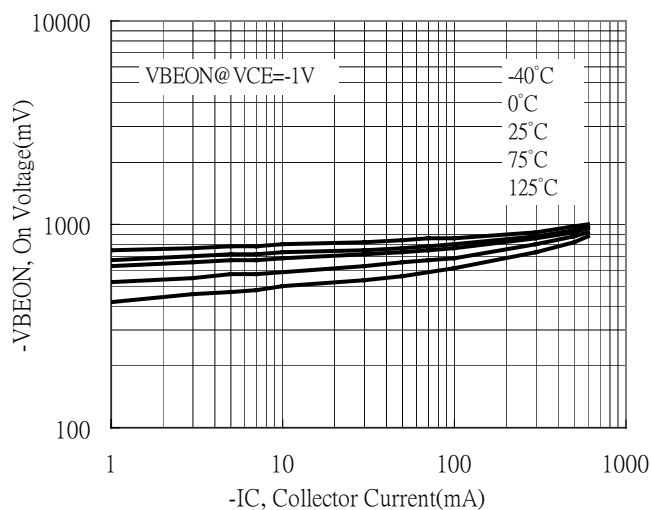


Saturation Voltage vs Collector Current

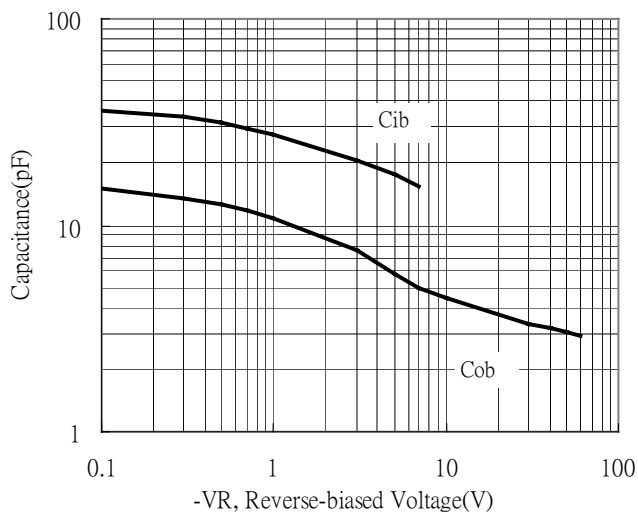


Typical Characteristics(Cont.)

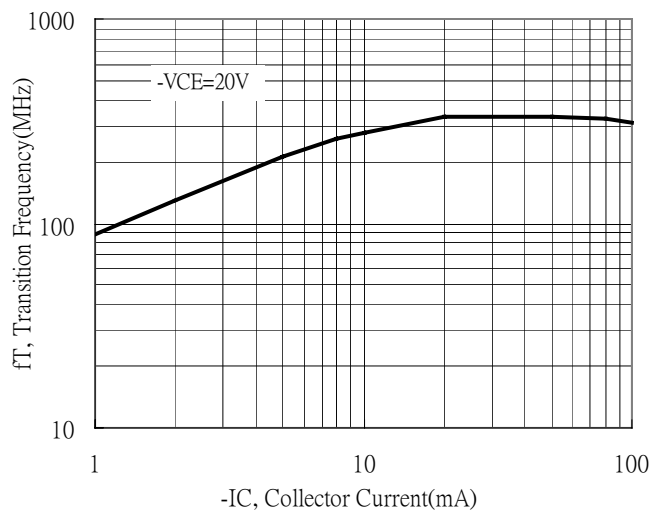
On Voltage vs Collector Current



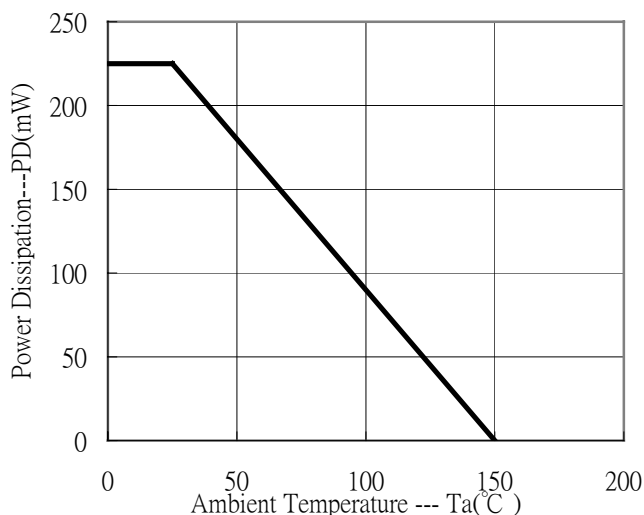
Capacitance vs Reverse-biased Voltage



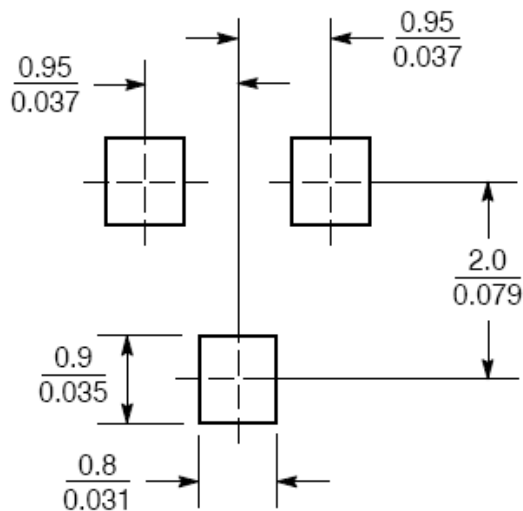
Transition Frequency vs Collector Current



Power Derating Curve

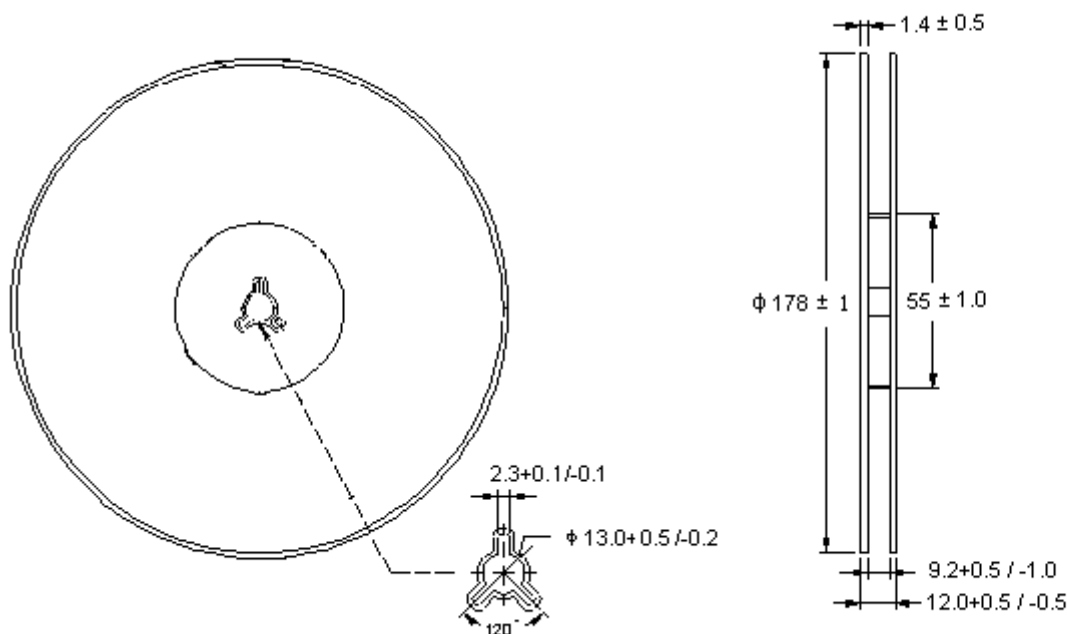


Recommended Soldering Footprint



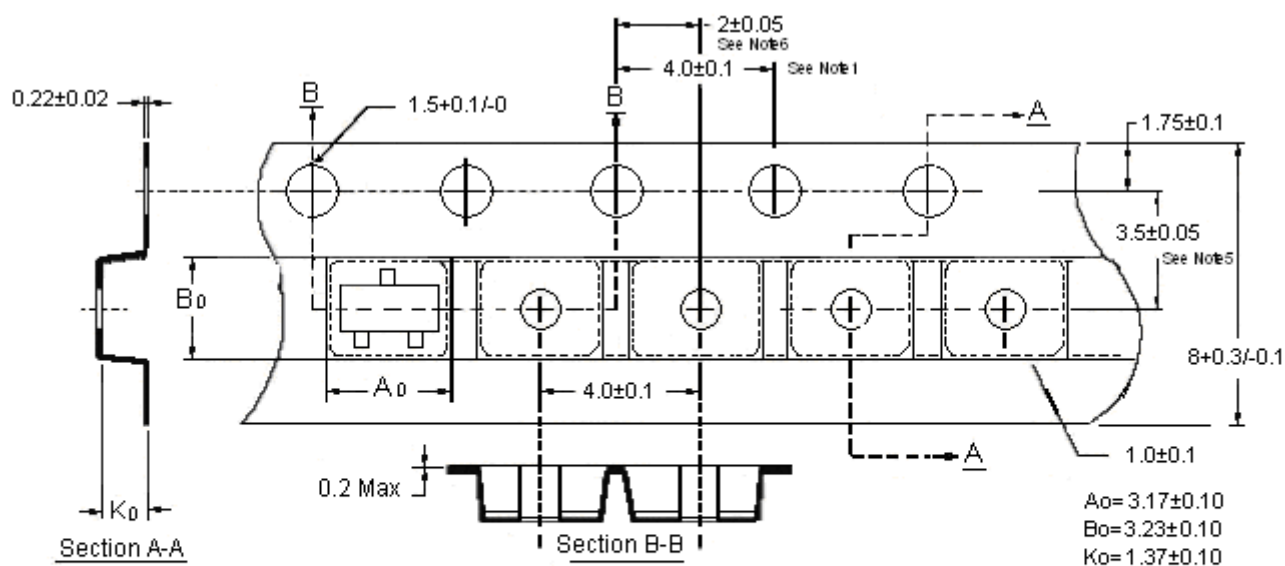
Unit : $\frac{mm}{inches}$

Reel Dimension



Unit: millimeter

Carrier Tape Dimension

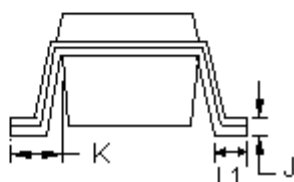
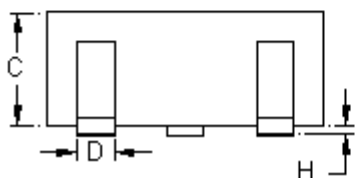
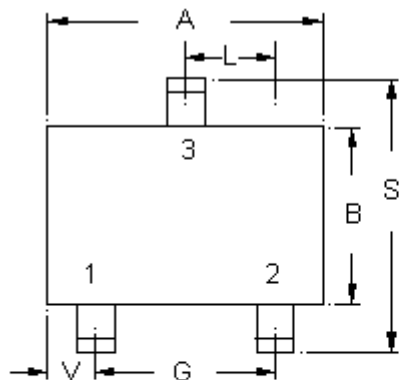


Notes:

1. 10 sprocket hole pitch cumulative tolerance ± 0.2 .
2. Camber not to exceed 1mm in 100mm.
3. Material : conductive Black Polystyrene.
4. A_0 & B_0 measured on a plane 0.3mm above the bottom of the pocket.
5. K_0 measured from a plane on the inside bottom of the pocket to the top surface of the carrier.
6. Pocket position relative to sprocket hole measured as true position of pocket, not pocket hole.

Unit : millimeter

SOT-23 Dimension



Marking:

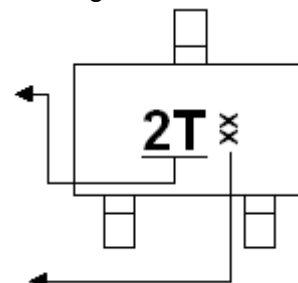
Product Code

Date Code: Year+Month
 Year: 5→2015, 6→2016

• • • , etc.

Month: 1→1, 2→2, • • •

9→9, A→10, B→11, C→12



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	0.0032	0.0079	0.08	0.20
B	0.0472	0.0669	1.20	1.70	K	0.0197	0.0283	0.50	0.72
C	0.0335	0.0453	0.89	1.15	L	0.0335	0.0453	0.85	1.15
D	0.0118	0.0197	0.30	0.50	S	0.0830	0.1161	2.10	2.95
G	0.0669	0.0787	1.70	2.00	V	0.0098	0.0256	0.25	0.65
H	0.0000	0.0040	0.00	0.10	L1	0.0118	0.0236	0.30	0.60