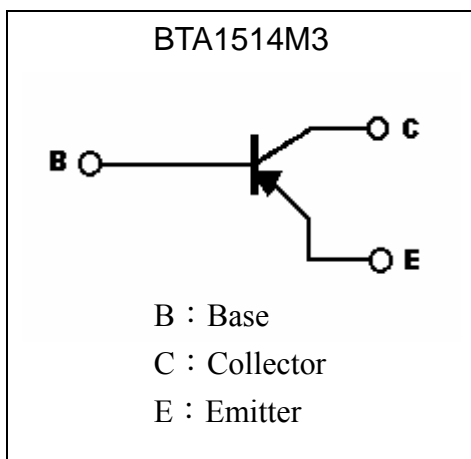
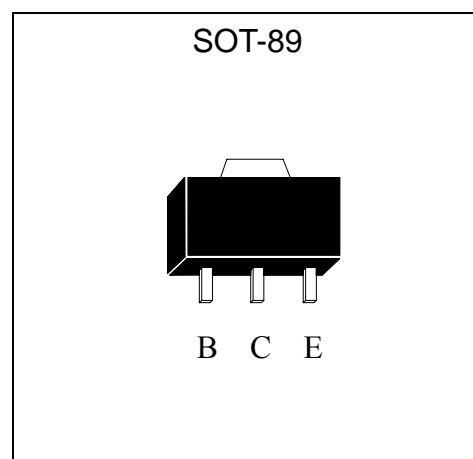


**General Purpose PNP Epitaxial Planar Transistor**

# BTA1514M3

**Description**

- The BTA1514M3 is designed for general purpose application requiring high breakdown voltage.
- Large  $I_C$  ,  $I_{C(Max)} = -0.6A$
- High  $BV_{CEO}$ ,  $BV_{CEO} = -150V$
- Complementary to BTC3906M3.
- Pb-free package

**Symbol**

**Outline**

**Absolute Maximum Ratings** ( $T_a=25^\circ C$ )

Parameter	Symbol	Limits	Unit
Collector-Base Voltage	$V_{CB0}$	-160	V
Collector-Emitter Voltage	$V_{CEO}$	-150	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Collector Current	$I_C$	-0.6	A
Power Dissipation	Pd	0.6	W
		1 (Note 1)	W
		2 (Note 2)	W
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature	$T_{stg}$	-55~+150	$^\circ C$

Note : 1. When mounted on FR-4 PCB with area measuring  $10 \times 10 \times 1$  mm  
 2. When mounted on ceramic with area measuring  $40 \times 40 \times 1$  mm

**Characteristics (Ta=25°C)**

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	-160	-	-	V	IC=-50μA
BVCEO	-150	-	-	V	IC=-1mA
BVEBO	-5	-	-	V	IE=-50μA
ICBO	-	-	-50	nA	VCB=-120V
IEBO	-	-	-50	nA	VEB=-4V
*VCE(sat) 1	-	-	-0.2	V	IC=-10mA, IB=-1mA
*VCE(sat) 2	-	-	-0.5	V	IC=-50mA, IB=-5mA
*VBE(sat) 1	-	-	-1	V	IC=-10mA, IB=-1mA
*VBE(sat) 2	-	-	-1	V	IC=-50mA, IB=-5mA
hFE 1	100	-	-	-	VCE=-5V, IC=-1mA
hFE 2	100	-	-	-	VCE=-5V, IC=-10mA
hFE 3	50	-	-	-	VCE=-5V, IC=-50mA
hFE 4	120	-	390	-	VCE=-6V, IC=-2mA
fT	100	-	-	MHz	VCE=-30V, IC=-10mA, f=100MHz
Cob	-	-	6	pF	VCB=-10V, f=1MHz

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

**Classification Of hFE 4**

Rank	Q	R
Range	120~270	180~390

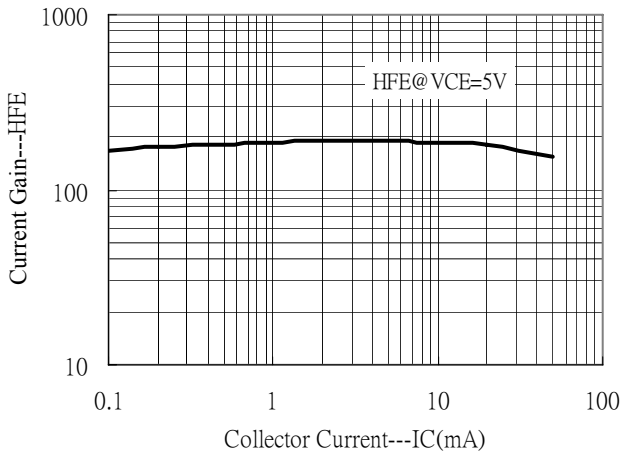
**Ordering Information**

Device	Package	Shipping	Marking
BTA1514M3	SOT-89 (Pb-free)	1000 pcs / Tape & Reel	2L

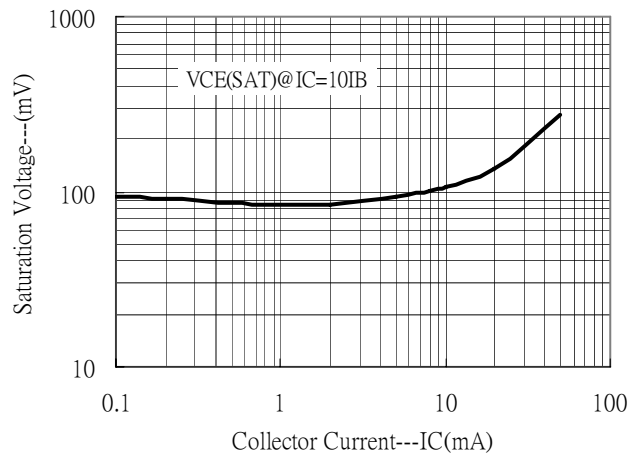


### Characteristic Curves

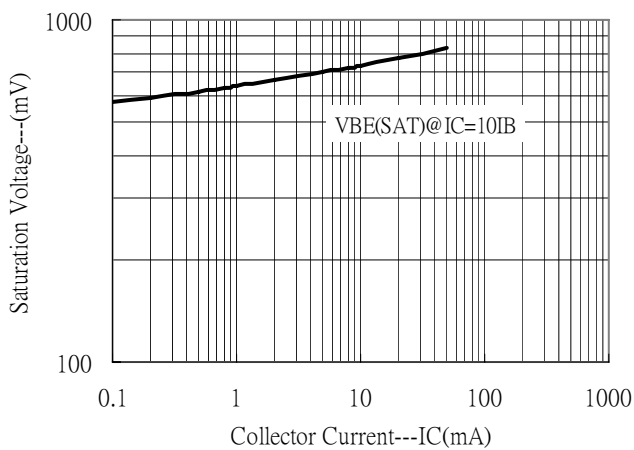
Current Gain vs Collector Current



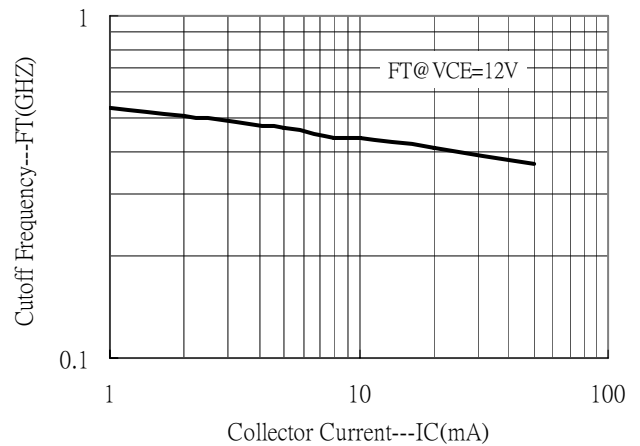
Saturation Voltage vs Collector Current



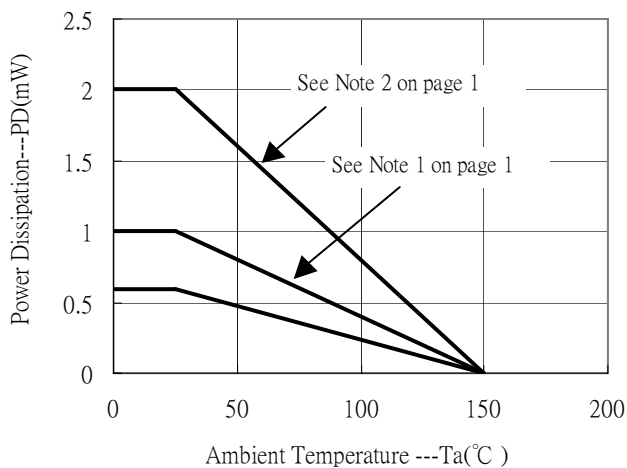
Saturation Voltage vs Collector Current



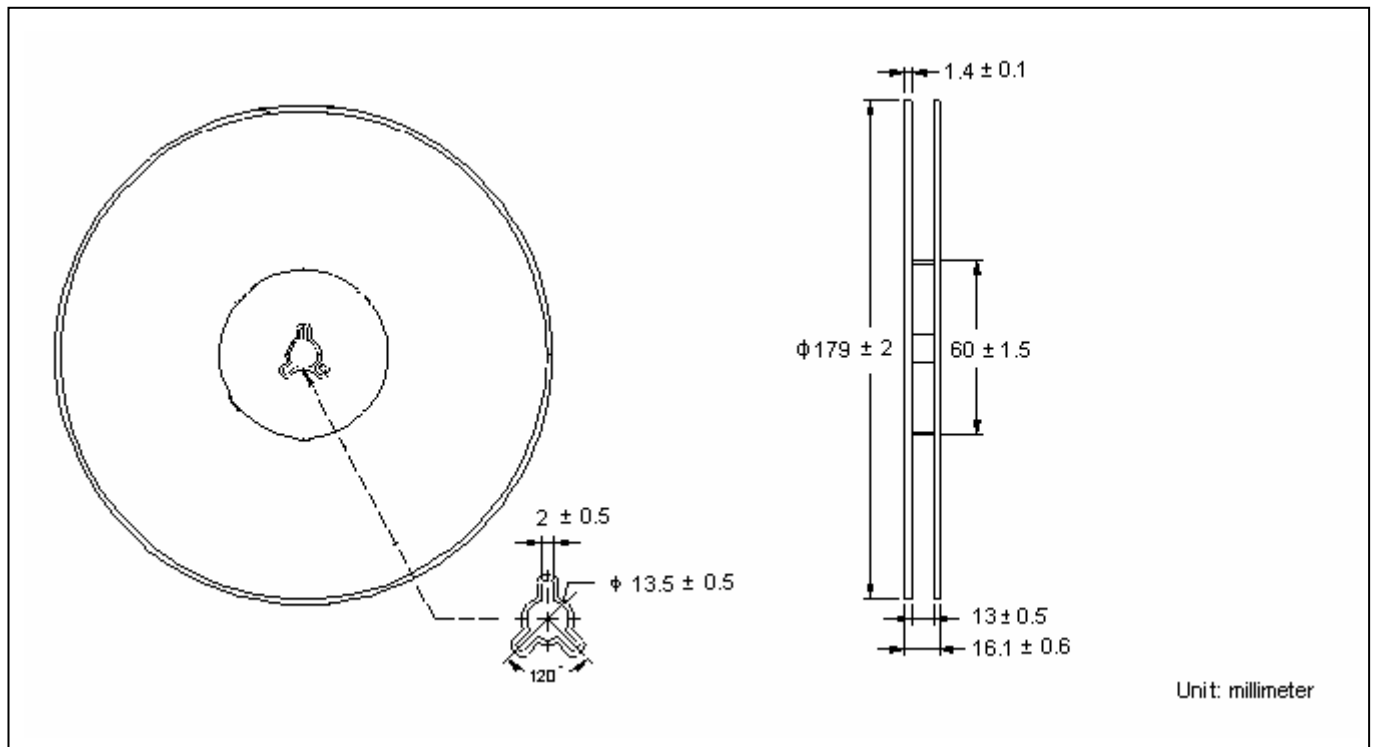
Cutoff Frequency vs Collector Current



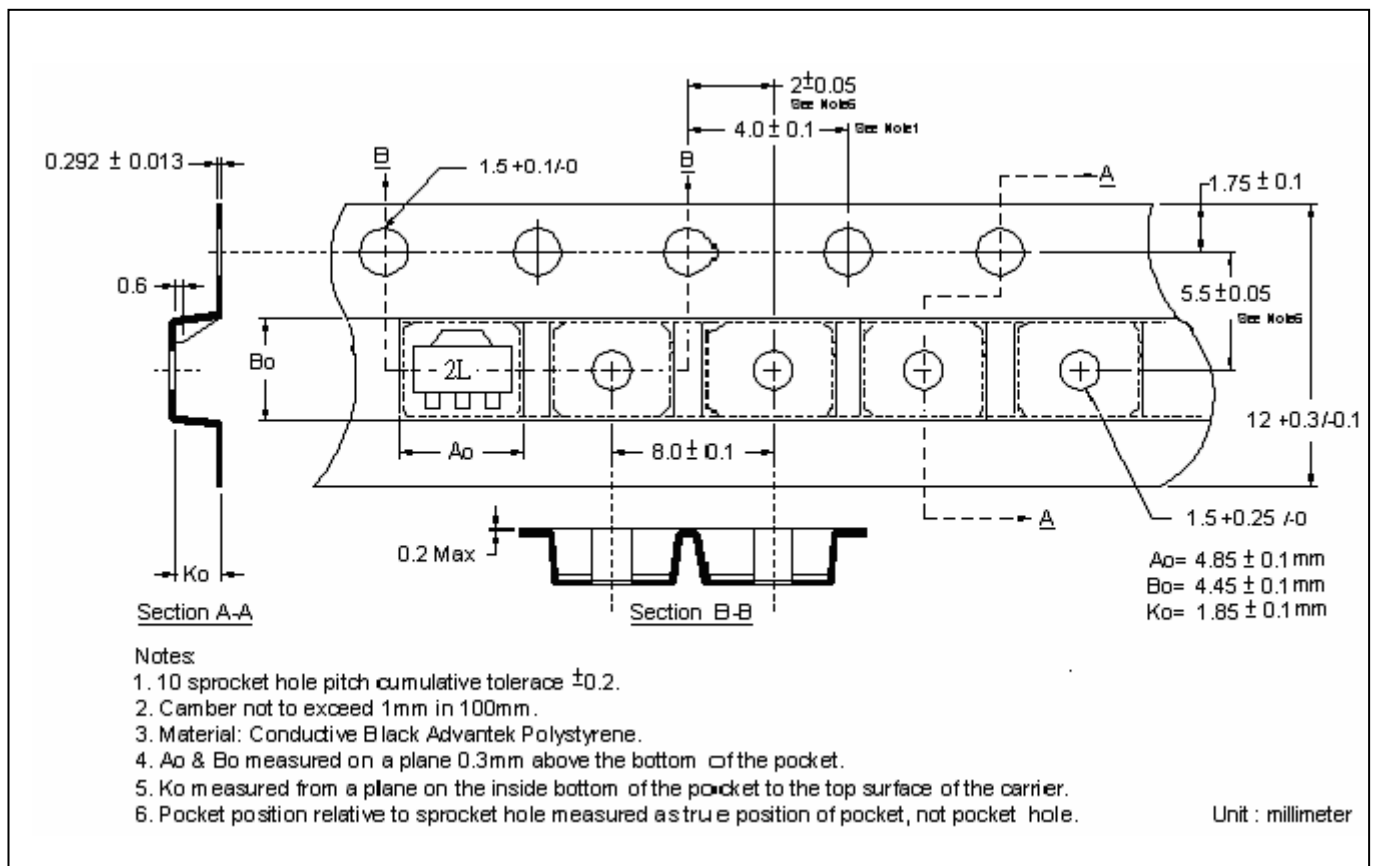
Power Derating Curves



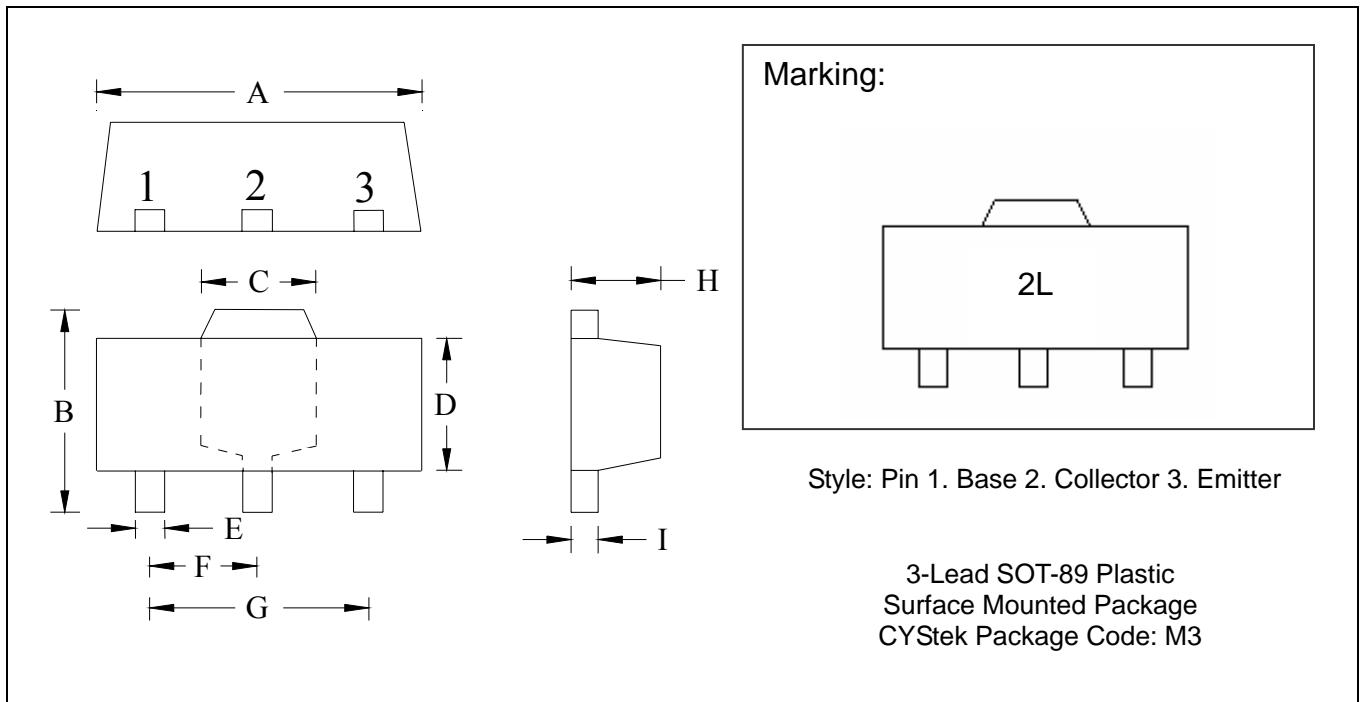
### Reel Dimension



### Carrier Tape Dimension



**SOT-89 Dimension**



\*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1732	0.1811	4.40	4.60	F	0.0583	0.0598	1.48	1.527
B	0.1594	0.1673	4.05	4.25	G	0.1165	0.1197	2.96	3.04
C	0.0591	0.0663	1.50	1.70	H	0.0551	0.0630	1.40	1.60
D	0.0945	0.1024	2.40	2.60	I	0.0138	0.0161	0.35	0.41
E	0.01417	0.0201	0.36	0.51					

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 CYStek sales office.

**Material:**

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

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