

# General Purpose Transistor

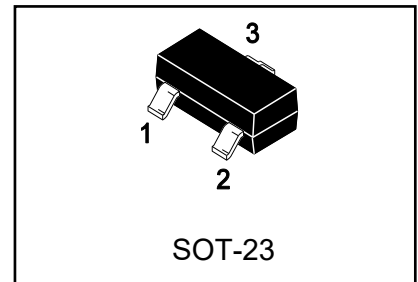
## DESCRIPTION

2SA1365\* is a mini package silicon PNP epitaxial transistor, designed with high collector current and small VCE(sat).

## FEATURE

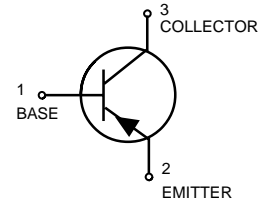
- Small collector to emitter saturation voltage.  
VCE(sat)=-0.2V typ
- Excellent linearity of DC forward current gain.
- Super mini package for easy mounting
- High collector current I<sub>CM</sub>=-1A
- High gain band width product f<sub>T</sub>=180MHz typ
- We declare that the material of product compliance with RoHS requirements.
- We declare that the material of product is ROHS compliant
- S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements, AEC-Q101 Qualified and PPAP Capable.

**2SA1365\***  
**S-2SA1365\***



## APPLICATION

Small type motor drive, relay drive, power supply.



## MAXIMUM RATINGS (T<sub>a</sub>=25°C)

Symbol	Parameter	Ratings	Unit
V <sub>CBO</sub>	Collector to Base voltage	-25	V
V <sub>CEO</sub>	Collector to Emitter voltage	-20	V
V <sub>EBO</sub>	Emitter to Base voltage	-4	V
I <sub>O</sub>	Collector current	-700	mA
P <sub>c</sub>	Collector dissipation	150	mW
T <sub>j</sub>	Junction temperature	+125	°C
T <sub>stg</sub>	Storage temperature	-55~+125	°C

## ORDERING INFORMATION

Device	Marking	Shipping
2SA1365E S-2SA1365E	AE	3000/Tape & Reel
2SA1365F S-2SA1365F	AF	3000/Tape & Reel
2SA1365G S-2SA1365G	AG	3000/Tape & Reel

## ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C)

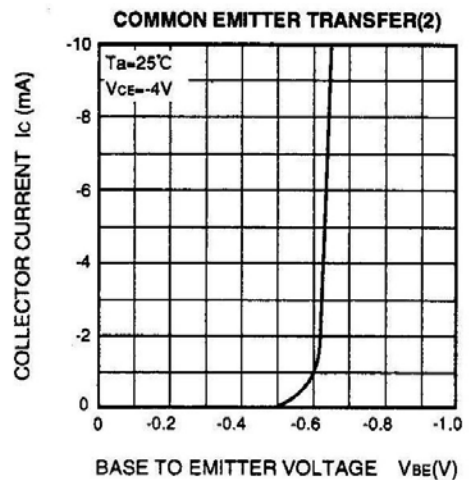
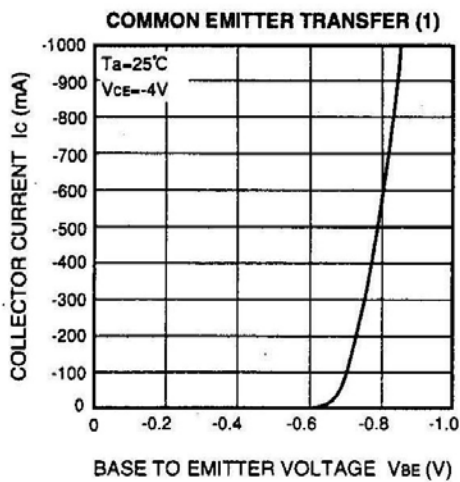
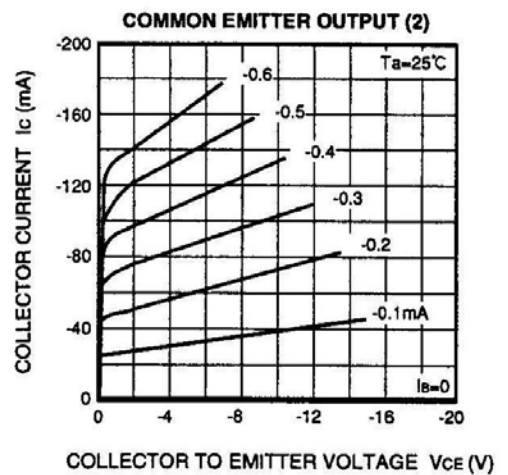
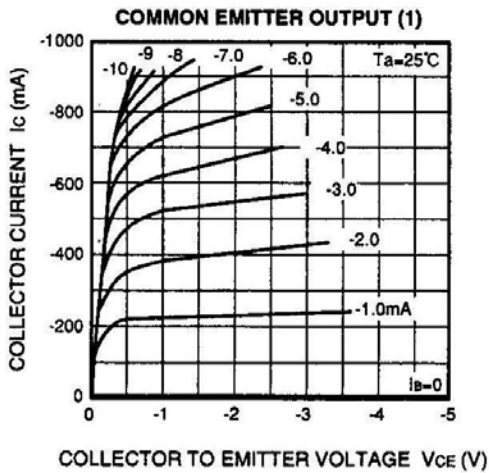
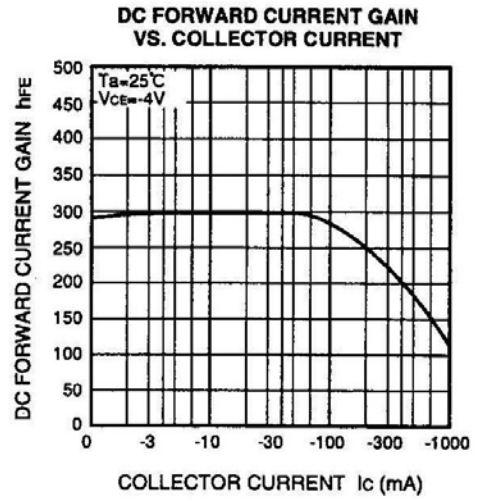
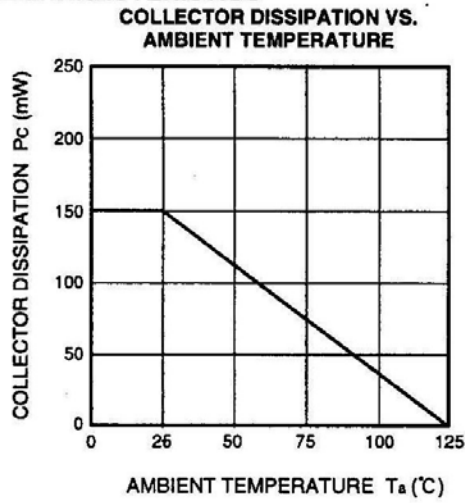
Parameter	Symbol	Test conditions	Limits			Unit
			Min	Typ	Max	
C to B break down voltage	V(BR) <sub>CBO</sub>	I <sub>C</sub> =-10 μA, I <sub>E</sub> =0	-25	-	-	V
E to B break down voltage	V(BR) <sub>EBO</sub>	I <sub>E</sub> =-10 μA, I <sub>C</sub> =0	-4	-	-	V
C to E break down voltage	V(BR) <sub>CEO</sub>	I <sub>C</sub> =-100 μA, R <sub>BE</sub> =∞	-20	-	-	V
Collector cut off current	I <sub>CBO</sub>	V <sub>CB</sub> =-25V, I <sub>E</sub> =0mA	-	-	-1	μA
Emitter cut off current	I <sub>EBO</sub>	V <sub>EB</sub> =-2V, I <sub>C</sub> =0mA	-	-	-1	μA
DC forward current gain	hFE	V <sub>CE</sub> =-4V, I <sub>C</sub> =-100mA ※	150	-	800	
C to E Saturation Vlotage	VCE(sat)	I <sub>C</sub> =-500mA, I <sub>B</sub> =-25mA	-	-0.2	-0.5	V
Gain bandwidth product	f <sub>T</sub>	V <sub>CE</sub> =-6V, I <sub>E</sub> =10mA	-	180	-	MHz

※) It shows hFE classification in below table.

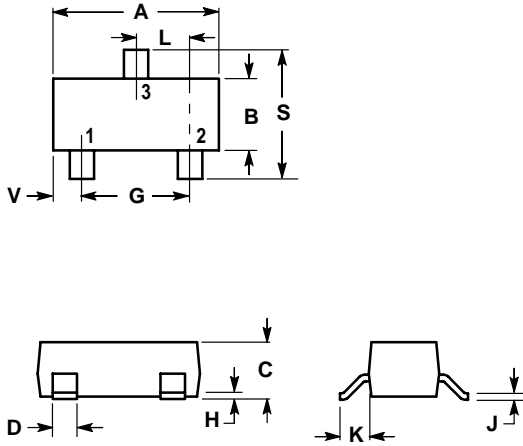
Item	E	F	G
hFE Item	150~300	250~500	400~800



**TYPICAL CHARACTERISTICS**



**SOT-23**



**NOTES:**

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.1102	0.1197	2.80	3.04
B	0.0472	0.0551	1.20	1.40
C	0.0350	0.0440	0.89	1.11
D	0.0150	0.0200	0.37	0.50
G	0.0701	0.0807	1.78	2.04
H	0.0005	0.0040	0.013	0.100
J	0.0034	0.0070	0.085	0.177
K	0.0140	0.0285	0.35	0.69
L	0.0350	0.0401	0.89	1.02
S	0.0830	0.1039	2.10	2.64
V	0.0177	0.0236	0.45	0.60

- PIN 1. BASE  
2. EMITTER  
3. COLLECTOR

