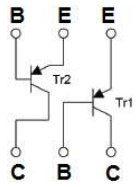
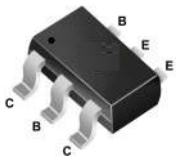
IMT2A

Dual Bipolar Transistor(PNP+PNP)

Features

- Two 2SA1037AK chips in a package.
- Transistor Elements are Independent, Eliminating Interference.
- Mounting Cost and Area Can be cut in Half.





IMT2A

SOT-23-6L

Mechanical Data

- Case: SOT-23-6L
- Molding compound, UL flammability classification rating 94V-0.
- Terminals: Matte tin plated leads, solderable per MIL-STD-202, Method 208.

Maximum Ratings (@T_A=25℃ unless otherwise specified For Tr1 and Tr2 in common)

Symbol	Parameter	Value	Units
MAXIMUM RATINGS			
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current - Continuous	-0.15	A
Thermal Characteristic			
P_D(Note 1,2)	Power Dissipation Ta=25℃	300	mW
T_J	Junction Temperature	-55~150	℃
T_{STG}	Junction and Storage Temperature	-55 to +150	℃

Notes:1、Each terminal mounted on a reference land.

2、200mW per element must not be exceeded.

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Dual Bipolar Transistor(PNP+PNP)

Electrical Characteristics (@T_A=25℃ unless otherwise specified For Tr1 and Tr2 in common)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-50μA,I_E=0	-60	-	-	V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-1mA,I_B=0	-50	-	-	V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-50μA,I_C=0	-6	-	-	V
Collector cut-off current	I_{CBO}	V_{CB}=-60V,I_E=0	-	-	-100	nA
Emitter cut-off current	I_{EBO}	V_{EB}=-6V,I_C=0	-	-	-100	nA
DC Current Gain	h_{FE}	V_{CE} = -6V, I_C = -1mA	120	-	560	-
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=-50mA, I_B=-5mA	-	-	-0.5	V
Transition frequency	f_T	V_{CE}=-12V, I_E=2mA f=100MHz	-	140	-	MHz
Collector output capacitance	C_{obo}	V_{CB}=-12V,f=1MHz	-	4	5	pF

Ratings and Characteristic Curves (T_A=25℃ unless otherwise noted)

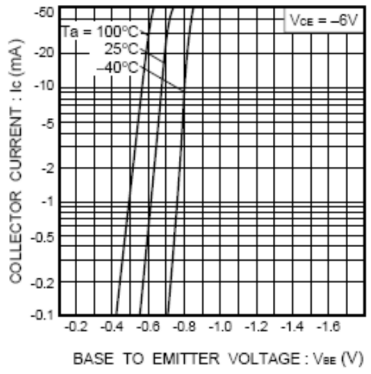


Fig.1 Grounded emitter propagation characteristics

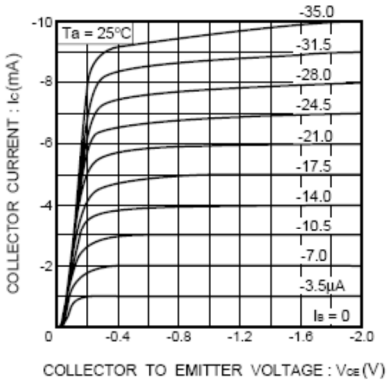


Fig.2 Grounded emitter output characteristics (I)

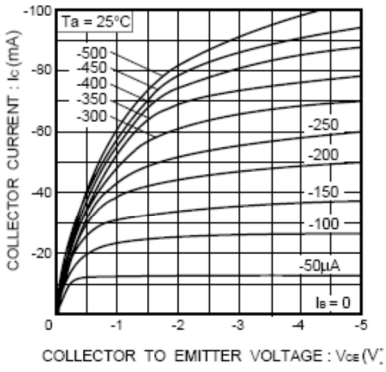


Fig.3 Grounded emitter output characteristics (II)

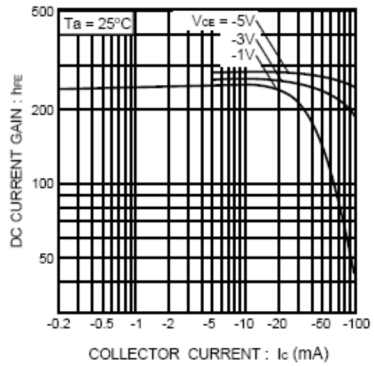


Fig.4 DC current gain vs. collector current (I)

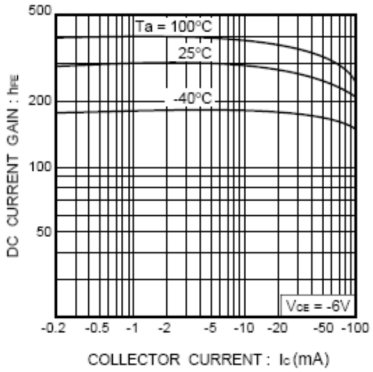


Fig.5 DC current gain vs. collector current (II)

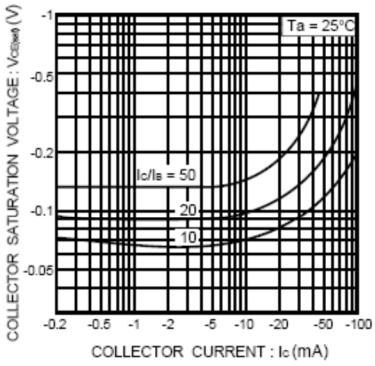


Fig.6 Collector-emitter saturation voltage vs. collector current (I)

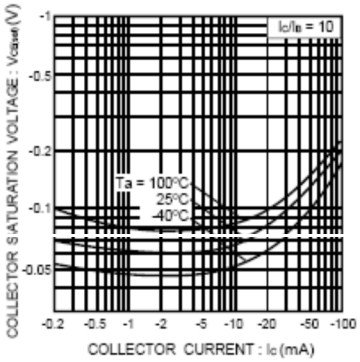


Fig.7 Collector-emitter saturation voltage vs. collector current (II)

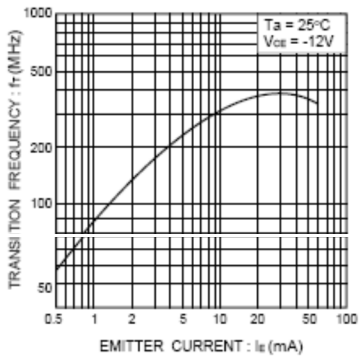


Fig.8 Gain bandwidth product vs. emitter current

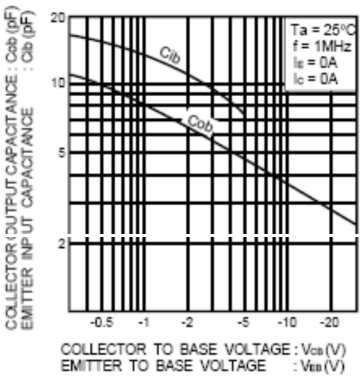
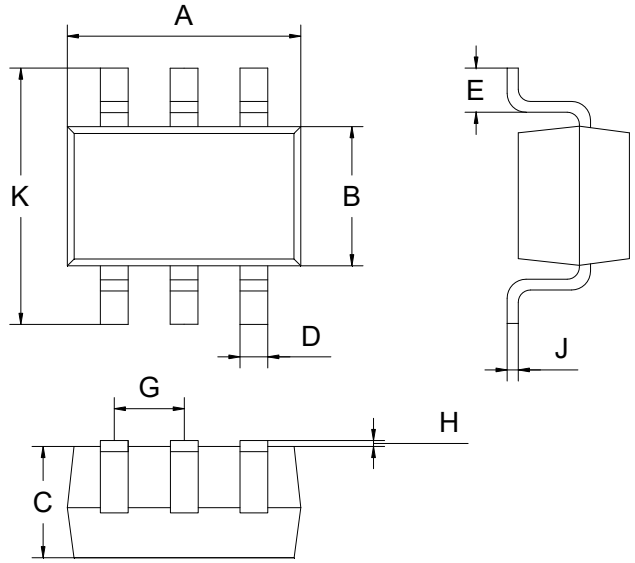


Fig.9 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage

Package Outline Dimensions(unit:mm)

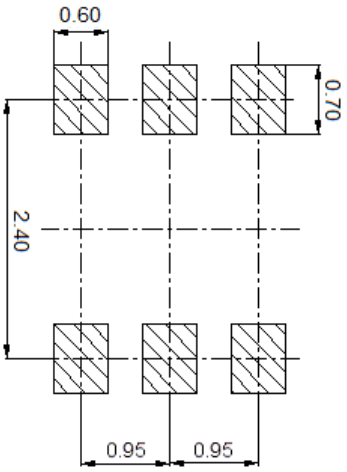
SOT-23-6L



SOT-23-6L		
Dim	Min	Max
A	2.80	3.00
B	1.50	1.70
C	1.00	1.20
D	0.35	0.45
E	0.35	0.55
G	0.90	1.00
H	0.02	0.10
J	0.10	0.20
K	2.60	3.00

SOLDERING FOOTPRINT(unit:mm)

SOT-23-6L



Ordering Information

Part Number	Package	Shipping	Marking Code
IMT2A	SOT-23-6L	3000/Tape&Reel	T2