

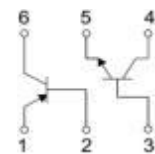
FEATURES

- Both 2SA1037AK and 2SC2412K chip in a package
- Transistor elements are independent, eliminating interference
- Mounting cost and area be cut in half

Absolute maximum ratings (Ta=25℃)

Symbol	Parameter	Limits		Units
		Tr1	Tr2	
V _{CBO}	Collector-Base Voltage	-60	60	V
V _{CEO}	Collector-Emitter Voltage	-50	50	V
V _{EBO}	Emitter-Base Voltage	-6	7	V
I _c	Collector Current	-150	150	mA
P _c	Collector Power Dissipation	150		mW
T _J , T _{stg}	Operation Junction and Storage Temperature Range	-55~+150		℃

SOT- 363



Marking: Z2

ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specified)

Tr1 (PNP)

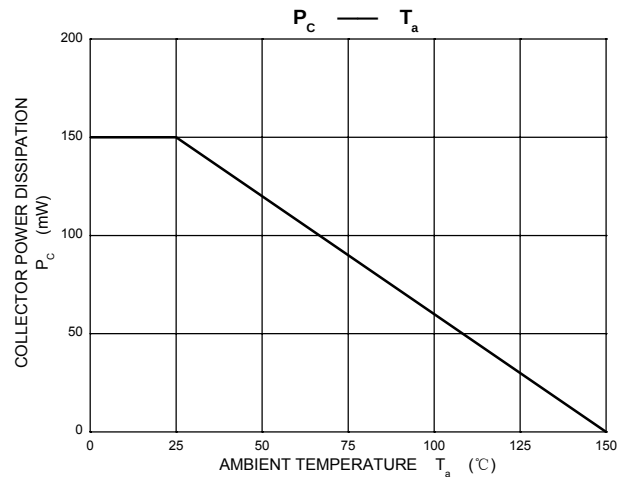
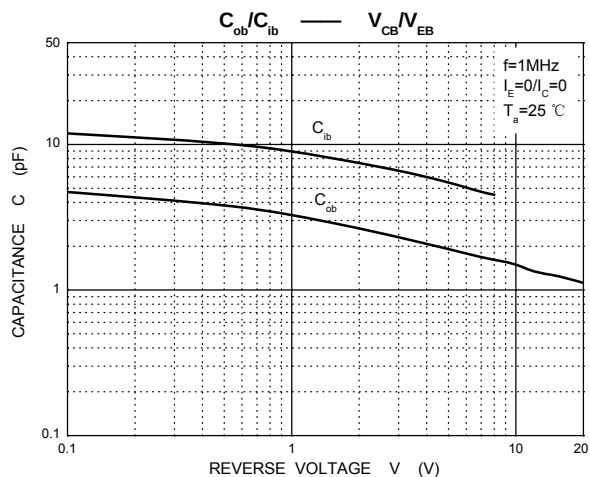
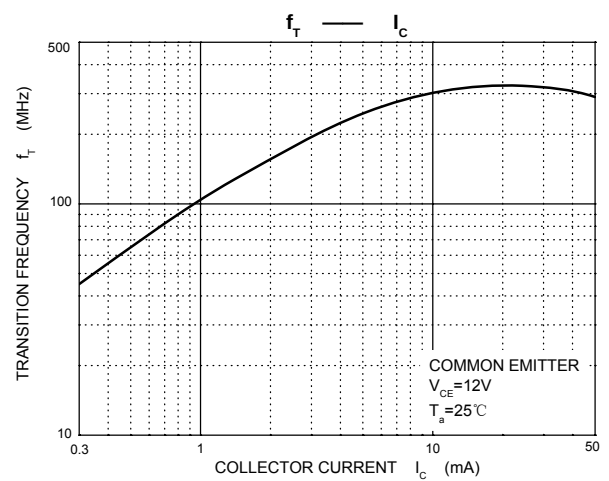
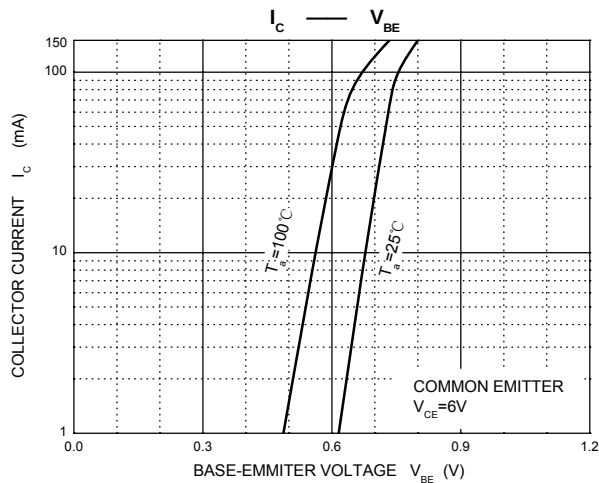
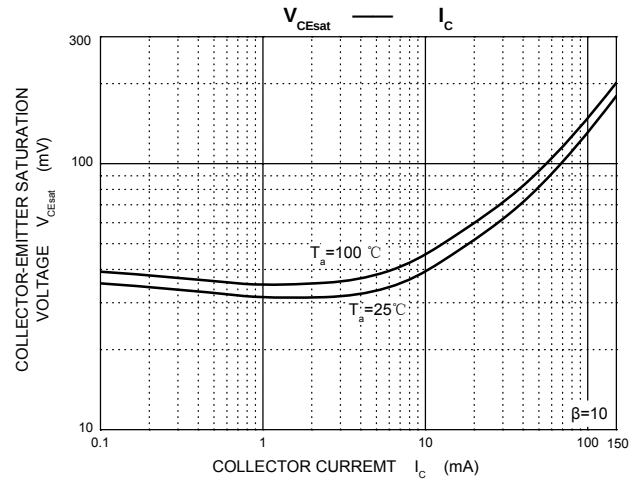
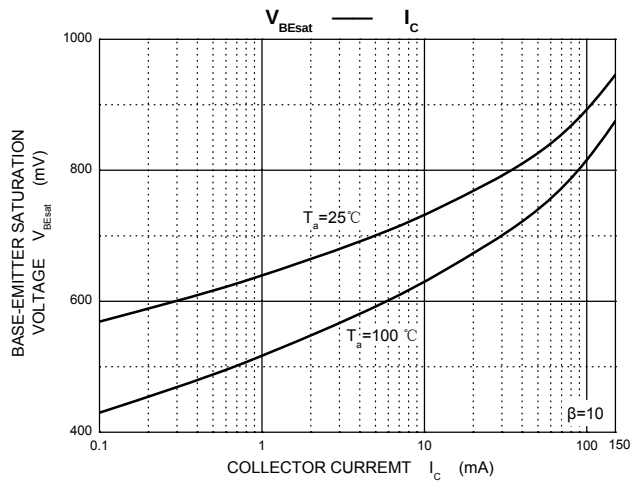
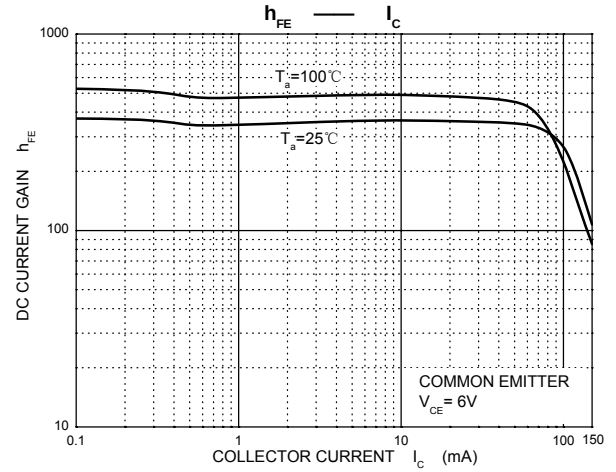
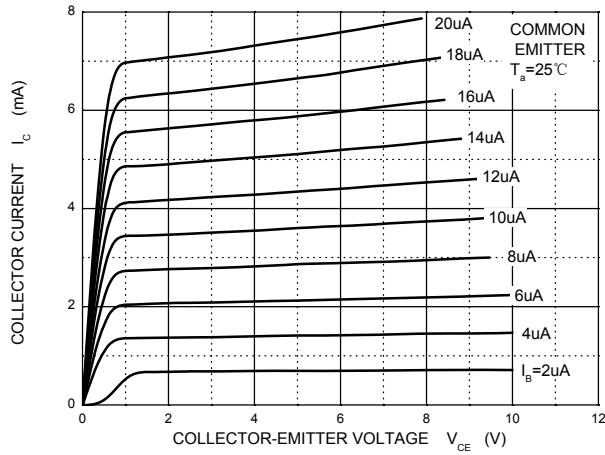
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _c =-50μA, I _E =0	-60			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _c =-1mA, I _B =0	-50			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =-50μA, I _C =0	-6			V
Collector cut-off current	I _{CBO}	V _{CB} =-60V, I _E =0			-0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} =-6V, I _C =0			-0.1	μA
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 _{ob}	V _{CB} =-12V, I _E =0, f=1MHz			5	pF

Tr2 (NPN)

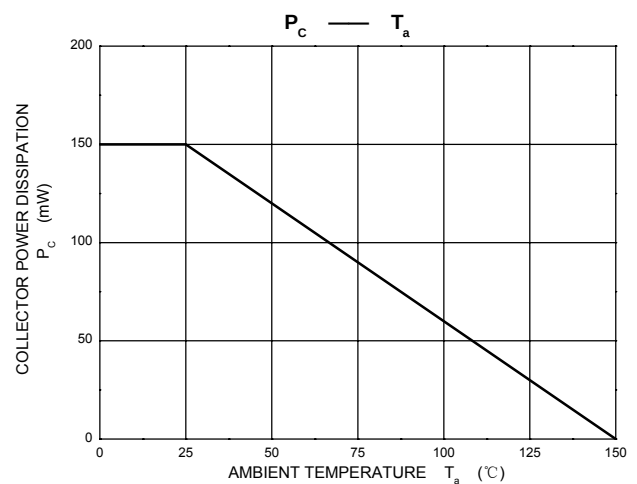
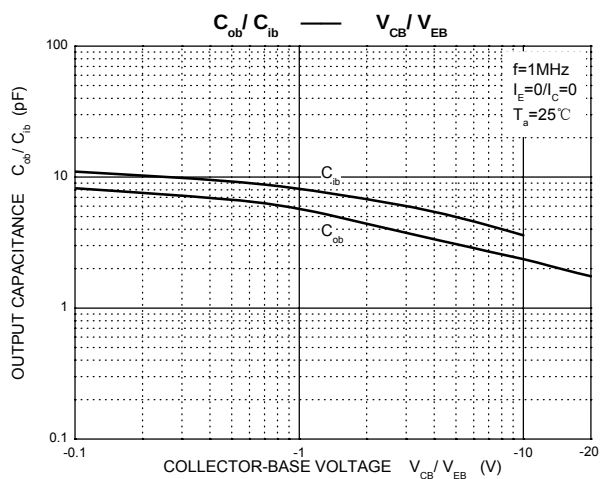
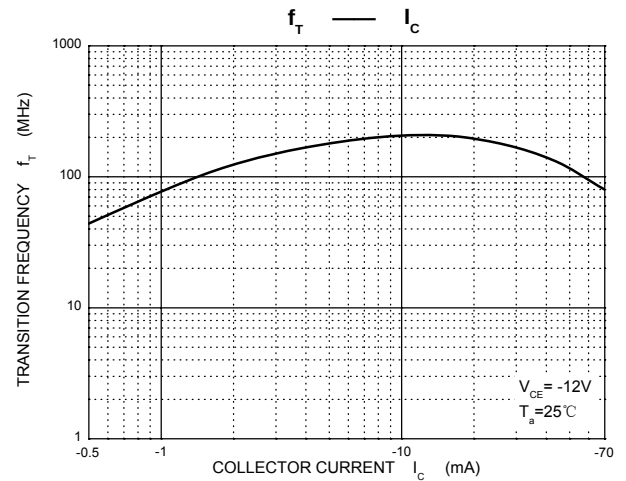
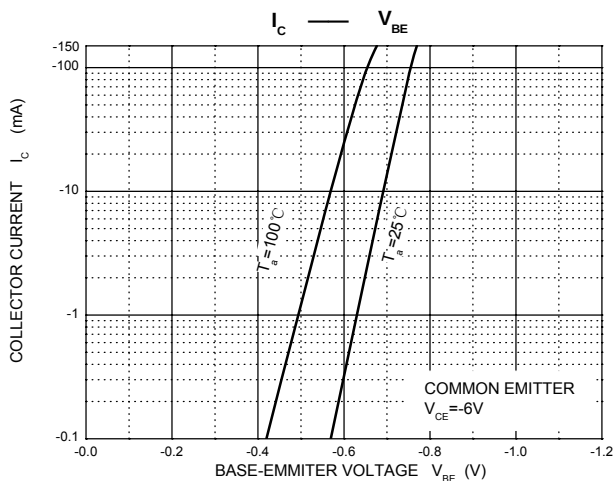
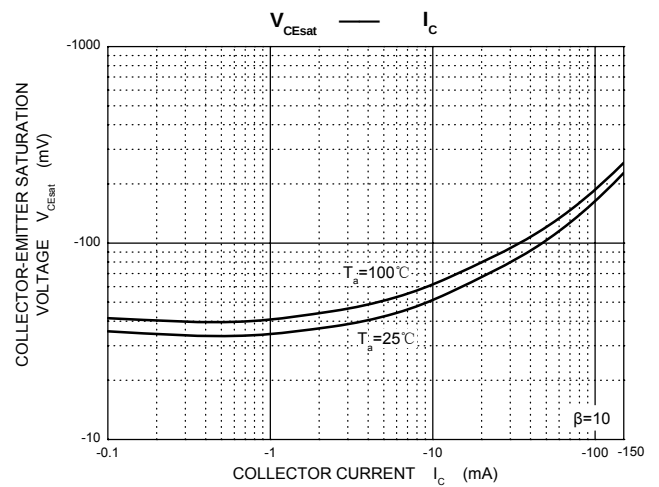
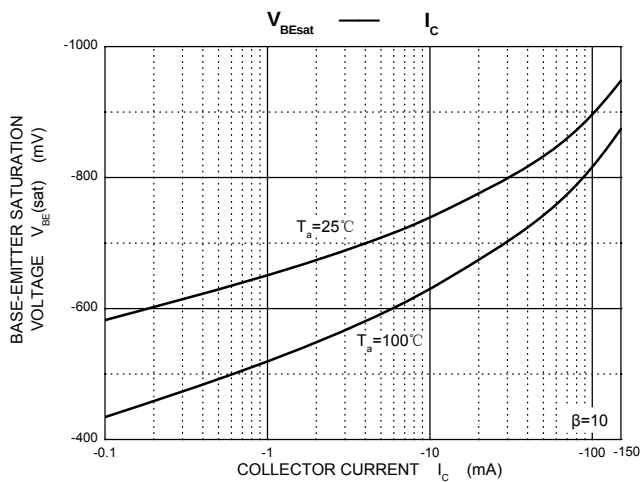
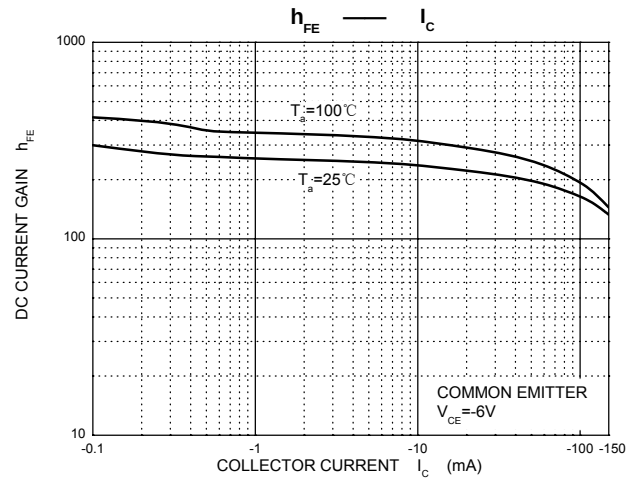
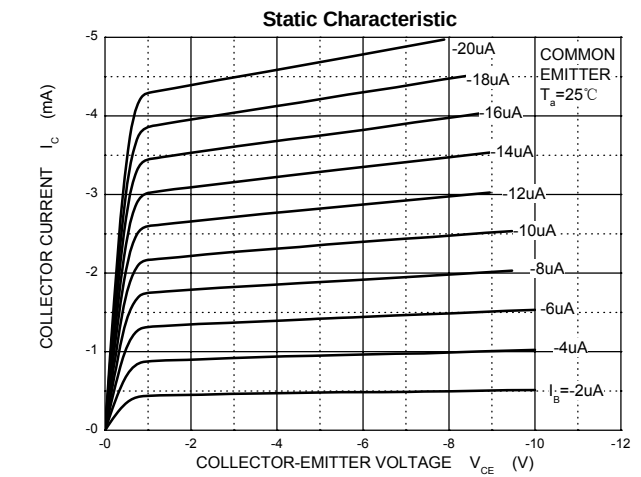
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=50\mu A, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=50\mu A, I_C=0$	7			V
Collector cut-off current	I_{CBO}	$V_{CB}=60V, I_E=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=7V, I_C=0$			0.1	μA
DC current gain	h_{FE}	$V_{CE}=6V, I_C=1mA$	120		560	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=50mA, I_B=5mA$			0.4	V
Transition frequency	f_T	$V_{CE}=12V, I_E=-2mA, f=100MHz$		180		MHz
Collector output capacitance	C_{ob}	$V_{CB}=12V, I_E=0, f=1MHz$			3.5	pF

Typical Characteristics

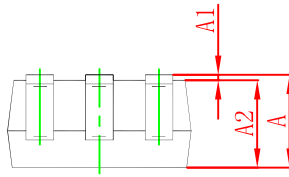
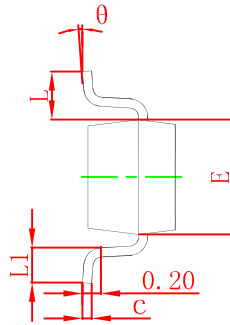
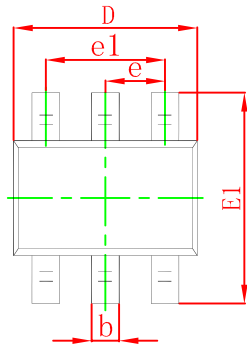
Static Characteristic



Typical Characteristics

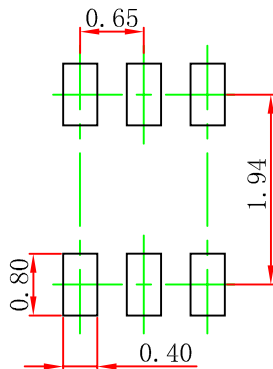


SOT-363 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.150	0.350	0.006	0.014
c	0.100	0.150	0.004	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.400	0.085	0.094
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

SOT-363 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.