

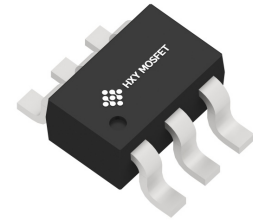


## Features

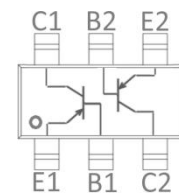
Two transistors in one package  
Reduces number of components and board space  
No mutual interference between the transistors

## Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
BC856BDW1T1G	SOT-363	5Ft	3000



Pin 1  
SOT-363



## Maximum Ratings (Ta=25°C unless otherwise noted)

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector- Base Voltage	-80	V
$V_{CEO}$	Collector-Emitter Voltage	-65	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current -Continuous	-0.1	A
$P_C$	Collector Power Dissipation	0.2	W
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	625	°C/W
$T_J, T_{STG}$	Operation Junction and Storage Temperature Range	-55~+150	°C

## Electrical Characteristics (Ta=25°C unless otherwise noted)

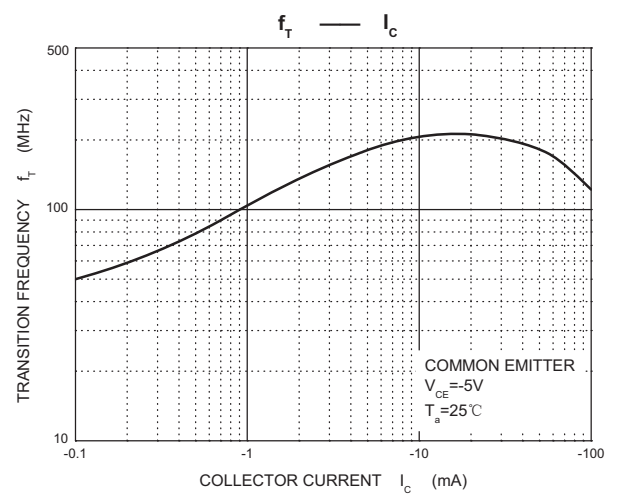
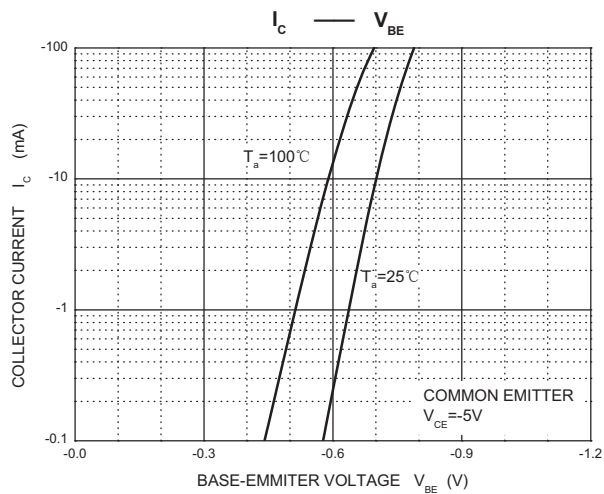
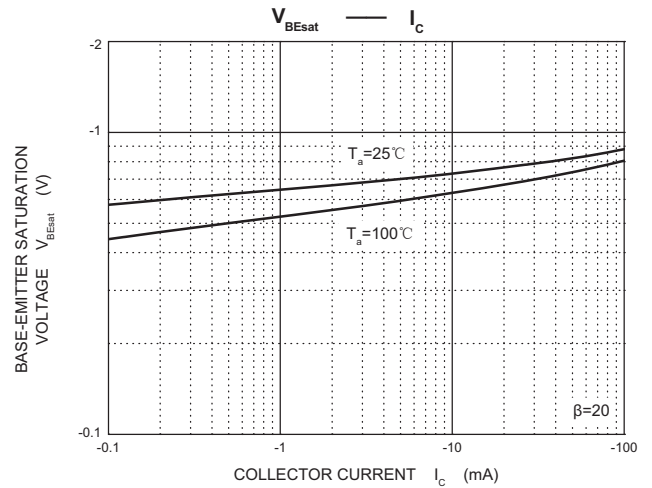
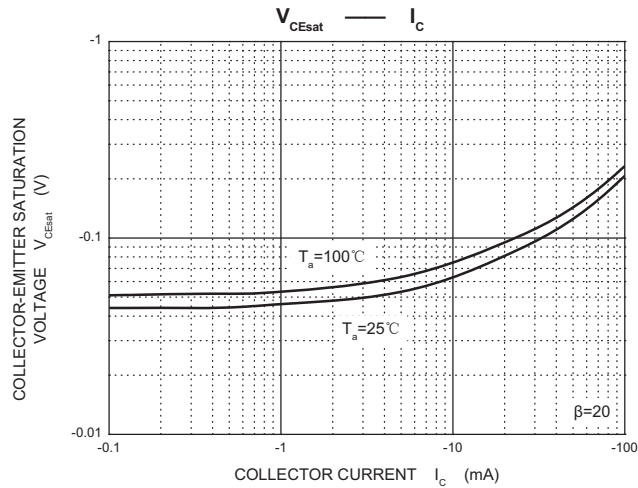
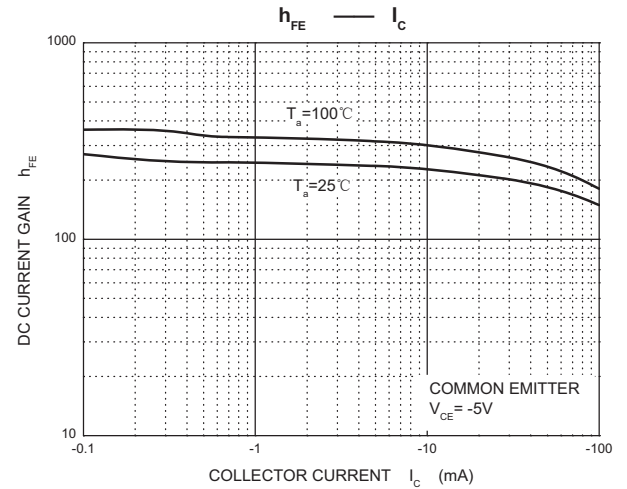
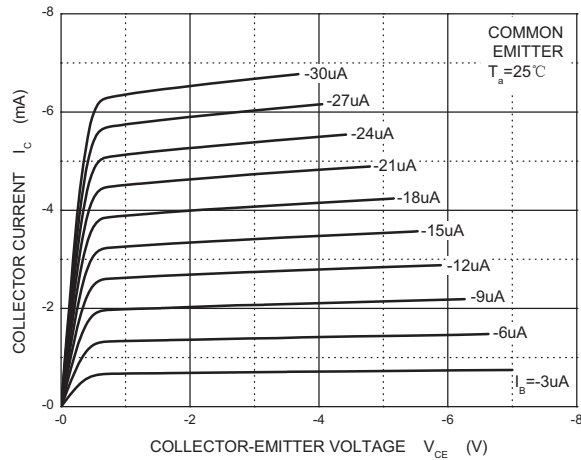
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10\mu A, I_E = 0$	-80			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -10mA, I_B = 0$	-65			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = 0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -30V, I_E = 0$			-0.5	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5V, I_C = 0$			-0.5	$\mu A$
DC current gain	$h_{FE}$	$V_{CE} = -5V, I_C = -2mA$	110		475	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -10mA, I_B = -0.5mA$			-0.1	V
		$I_C = -100mA, I_B = -5mA^*$			-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -10mA, I_B = -0.5mA$		0.7		V
Output Capacitance	$C_{obo}$	$V_{CB} = -10V, f = 1MHz, I_E = 0$			2.5	pF
Current Gain-Bandwidth Product	$f_T$	$V_{CE} = -5V, I_C = -10mA, f = 100MHz$	100			MHz

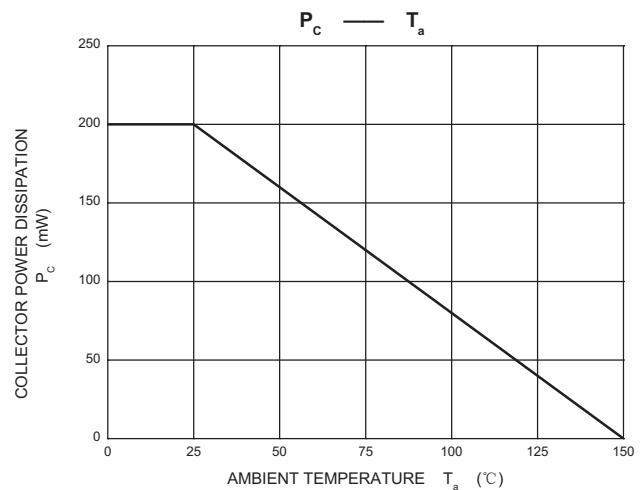
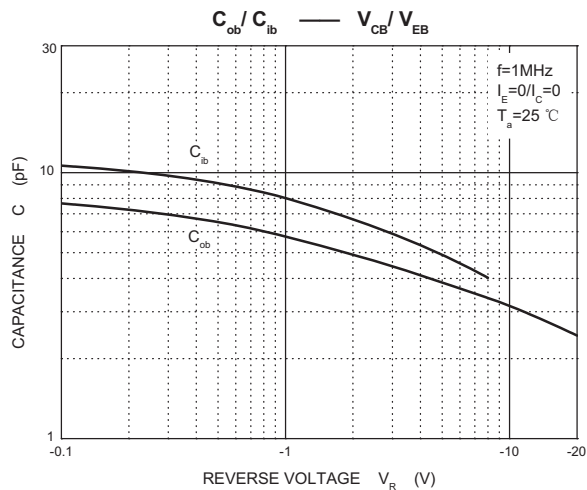
\*pulse test:  $PW \leq 350\mu S, \delta \leq 2\%$ .



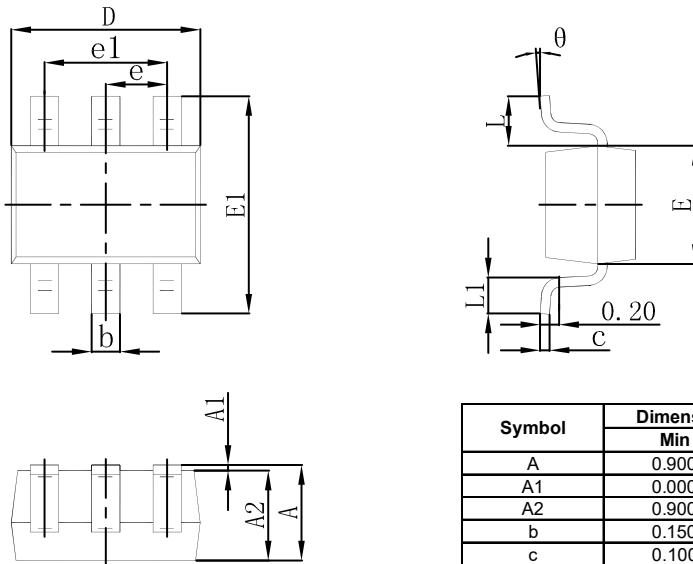
## Typical Characteristics

Static Characteristic



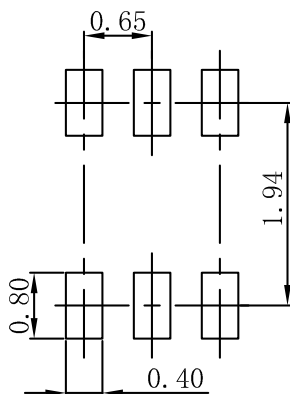


### SOT-363 Package Outline Dimensions



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
theta	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.



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