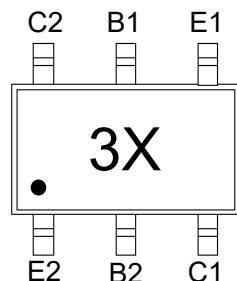


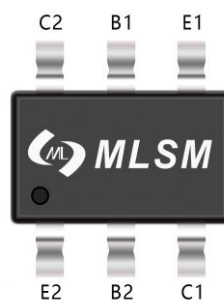
Features

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

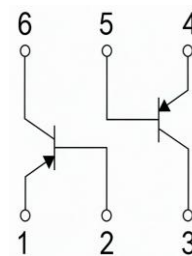


X: Rank

Marking and pin assignment



SOT-363 top view



Schematic diagram



Halogen-Free

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

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-45	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-0.2	A
P_C	Collector Power Dissipation	300	mW
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	°C

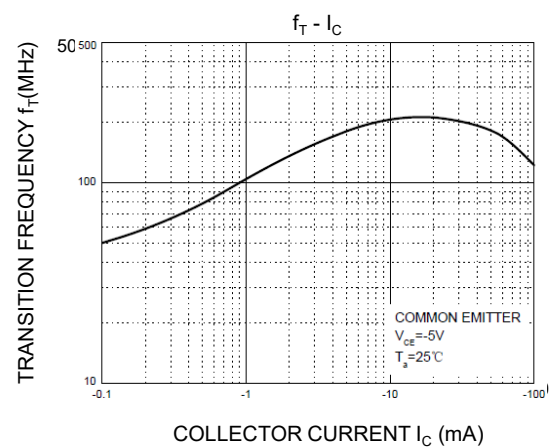
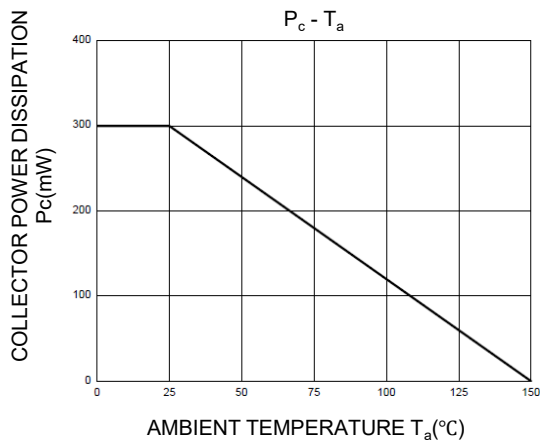
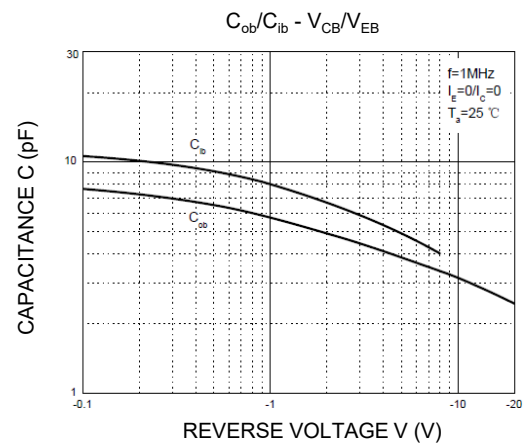
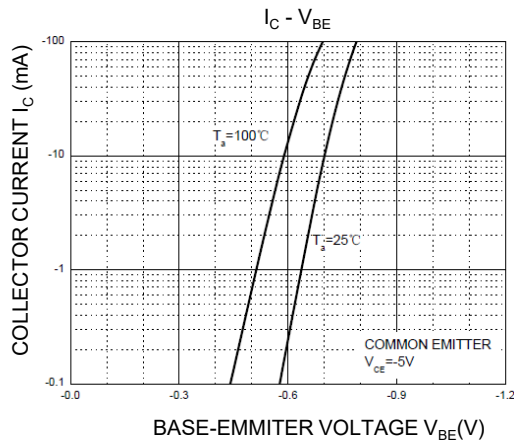
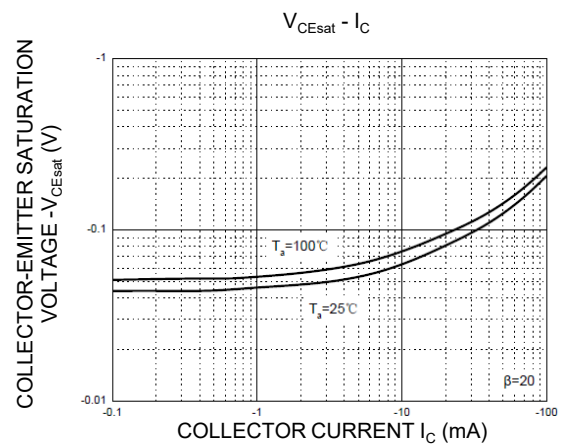
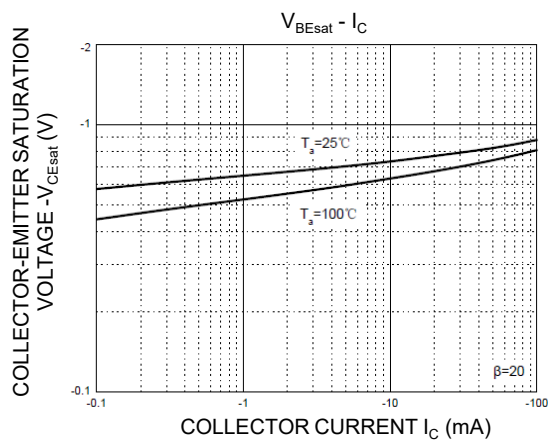
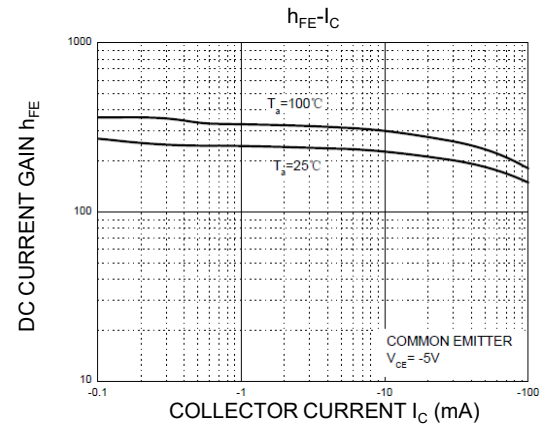
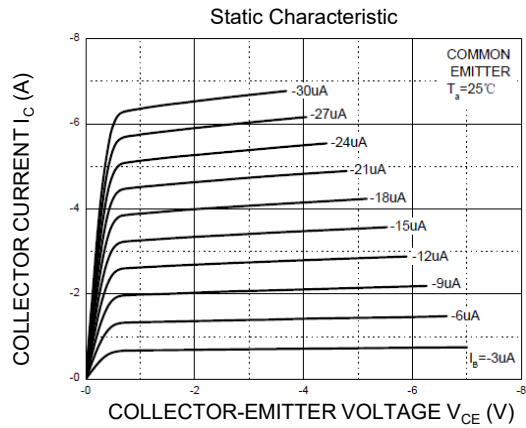
Ordering Information (Example)

Type	Package	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
BC857S	SOT-363	3,000	45,000	180,000	7"reel

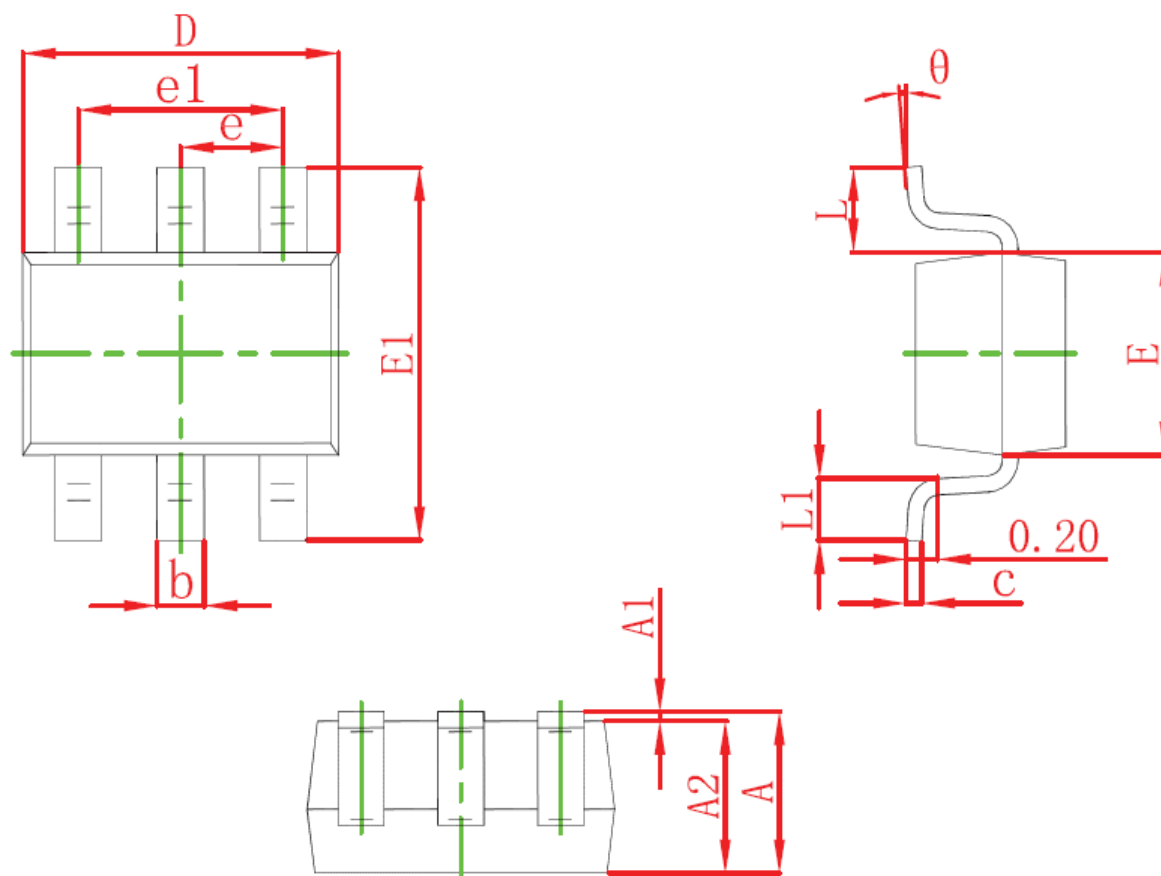
Electrical Characteristics (Ta=25°C unless otherwise noted)

Symbol	Parameter	Condition	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C = -10\mu A, I_E = 0$	-50	--	--	V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C = -10mA, I_B = 0$	-45	--	--	V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E = -10\mu A, I_C = 0$	-5	--	--	V
I_{CBO}	Collector cut-off current	$V_{CB} = -30V, I_E = 0$	--	--	-15	nA
Hfe	DC current gain	$V_{CE} = -5V, I_C = -2mA$	125	--	630	--
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C = -10mA, I_B = -0.5mA$	--	--	-0.3	V
		$I_C = -100mA, I_B = -5mA$	--	--	-0.65	V
V_{BE}	Base-emitter voltage	$V_{CE} = -5mA, I_C = -2mA$	-0.6	--	-0.75	V
		$V_{CE} = -5mA, I_C = -10mA$	--	--	-0.82	V
f_T	Transition frequency	$V_{CE} = -5V, I_C = -10mA$ $f = 100MHz$	--	200	--	MHz
C_{ob}	Output Capacitance	$V_{CB} = -10V, I_E = 0, f = 1MHz$	--	3.5	--	pF
NF	Noise Figure	$V_{CE} = -5V, I_C = -200\mu A$, $f = 1KHz, R_s = 2K\Omega, BW = 200Hz$	--	2.5	--	dB

Typical Operating Characteristics



SOT-363 Package information



Symbol	Dimensions in Millimeters(mm)		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	0.650TYP		0.026TYP	
e1	1.200	1.400	0.047	0.055
L	0.525REF		0.021REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°