

SOT-363 Plastic-Encapsulate Transistors

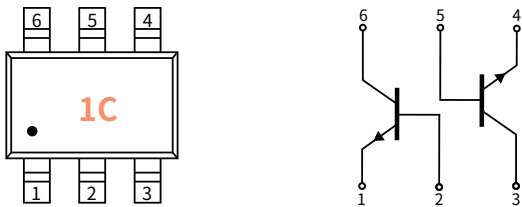
Features

- Complementary to BC856BS THRU BC858BS
- Power dissipation of 200mW
- High stability and high reliability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

Mechanical Data

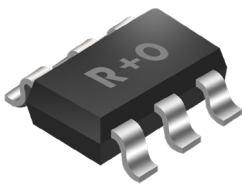
- Case: SOT-363
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant,halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026

Function Diagram



Collector-Base Voltage
VCBO 50V
Collector Current
0.1 Ampere

SOT-363



Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	CONDLITIONS	VALUE
Collector-Base Voltage	V_{CBO}	V	$I_C=10\mu A, I_E=0$	50
Collector-Emitter Voltage	V_{CEO}		$I_C=10mA, I_B=0$	45
Emitter-Base Voltage	V_{EBO}		$I_C=0, I_E=10\mu A$	6.0
Collector Current	I_C	A	—	0.1
Collector Power Dissipation	P_C	mW	—	200
Storage temperature	T_{stg}	°C	—	-55 ~+150
Junction temperature	T_J	°C	—	-55 ~+150
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	—	625

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

PARAMETER	SYMBOL	UNIT	Condition	Min	Max
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	V	$I_C=10\mu A, I_E=0$	50	—
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$		$I_C=10mA, I_B=0$	45	—
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$		$I_E=10\mu A, I_C=0$	6.0	—
Collector-Base cut-off current	I_{CBO}	μA	$V_{CB}=50V, I_E=0$	—	0.1
Collector-Emitter cut-off current	I_{CEO}		$V_{CB}=45V, I_E=0$	—	0.1
Emitter-Base cut-off current	I_{EBO}		$V_{EB}=5.0V, I_C=0$	—	0.1
DC Current Gain	h_{FE}	—	$I_C=2mA, V_{CE}=5.0V$	110	800
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	V	$I_C=100mA, I_B=5mA$	—	0.5
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	V	$I_C=100mA, I_B=5mA$	—	1.1

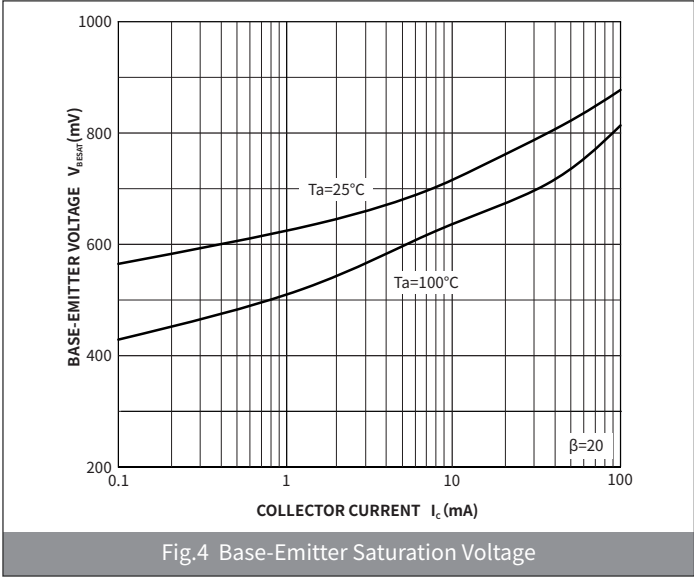
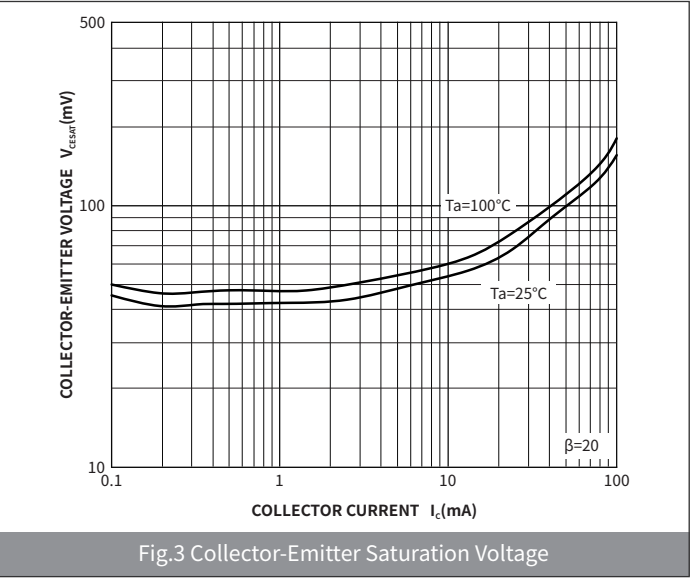
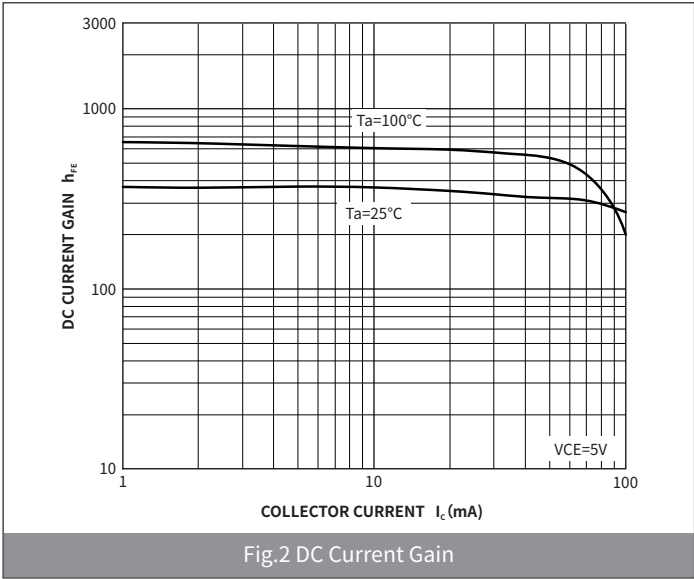
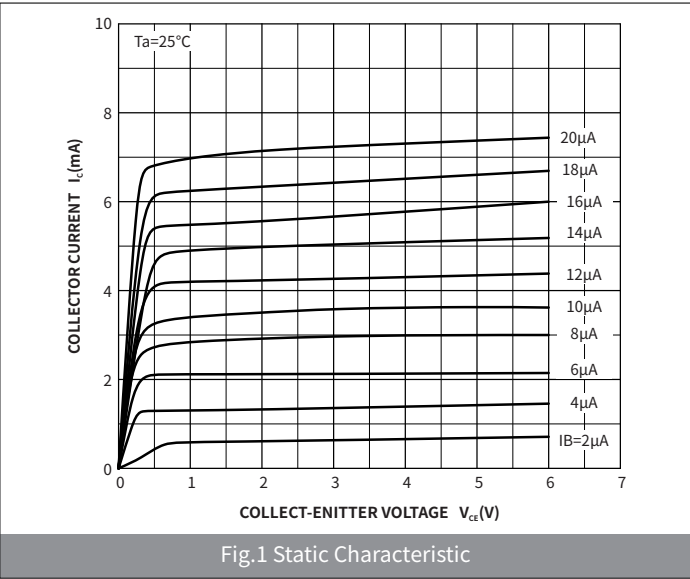
● Classification Of h_{FE}

RANK	A	B	C
Range	110-220	200-450	420-800

● Small-signal Characteristics

ITEM	SYMBOL	Condition	UNIT	Min	Max
Transition frequency	f_T	$I_C=10mA, V_{CE}=5V, f=100MHz$	MHz	100	—

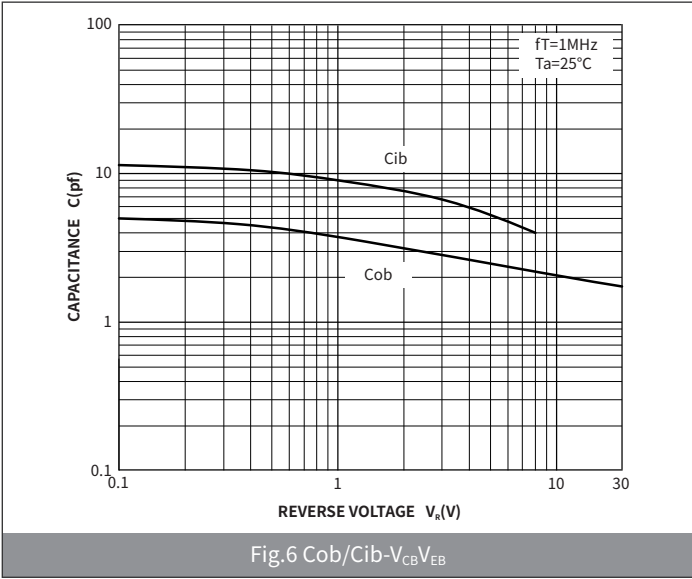
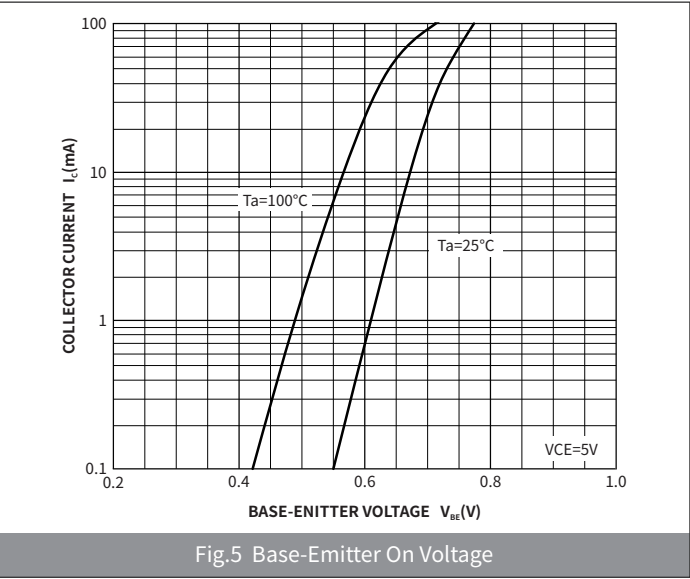
● Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)



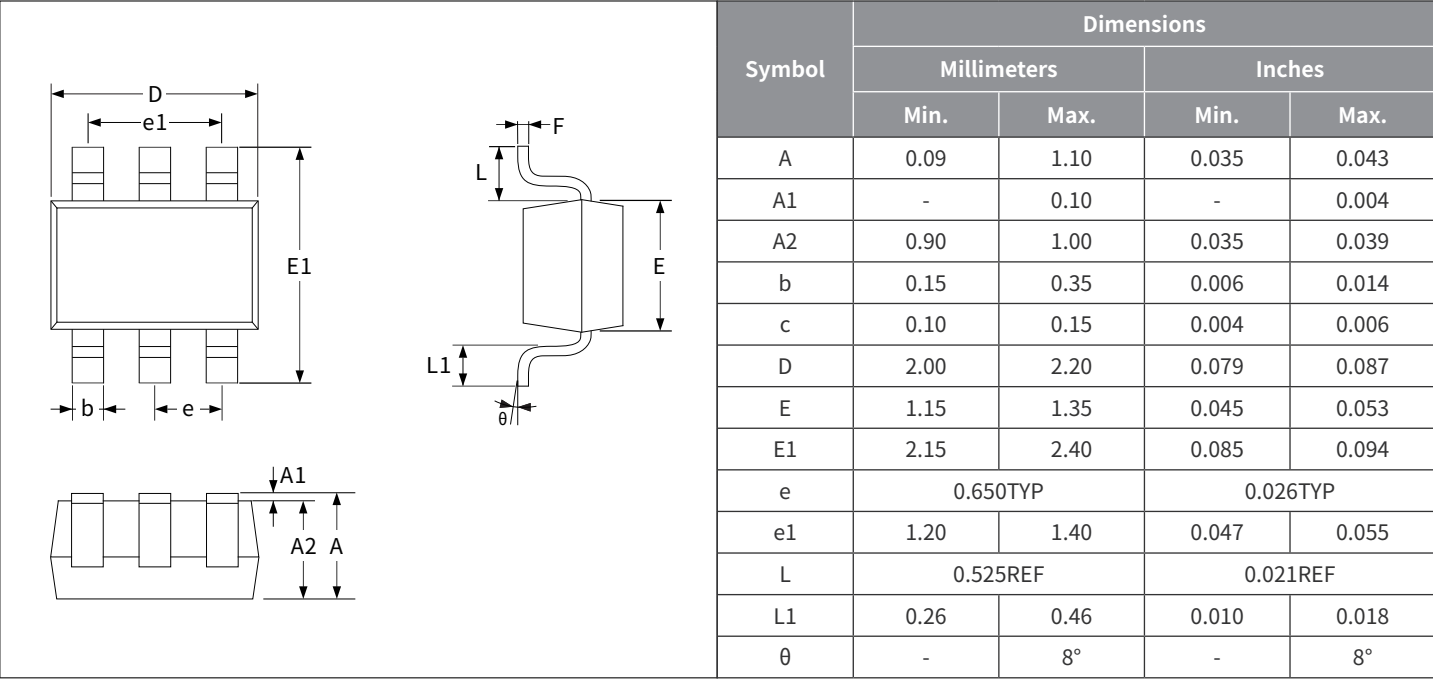
● Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SOT-363	R1	0.0068	3000	45000	180000	7"

● Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)



● Package Outline Dimensions (SOT-363)



● Suggested Pad Layout

