

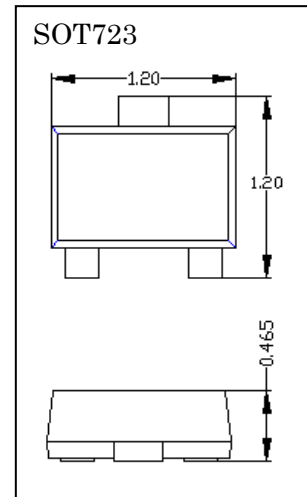
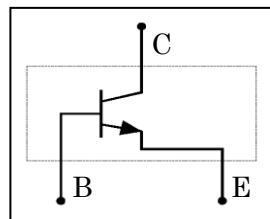
DATA SHEET

2SC5658

- ◇ Small Outline Surface Mount Package
- ◇ RoHS Compliant / Green EMC

Device Marking Code	
2SC5658	BQ, BR, BS

Equivalent Circuit



Maximum Ratings (Ta=25°C Unless Otherwise Noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current	150	mA
P_C	Collector Power Dissipation	100	mW
T_j	Junction Temperature	150	°C
T_{stg}	Storage Temperature	-55~+150	°C

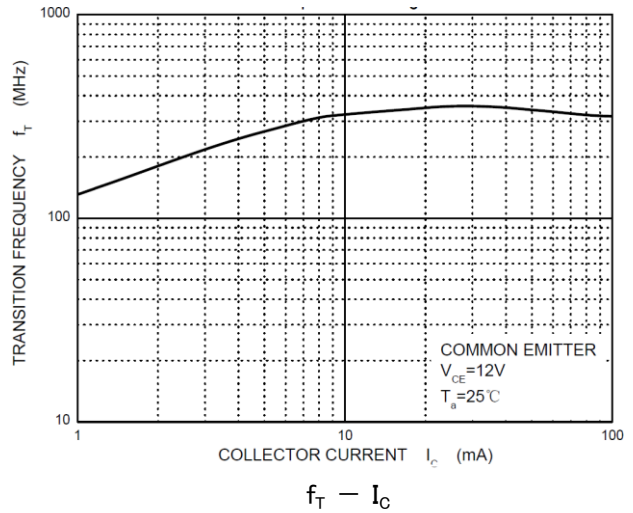
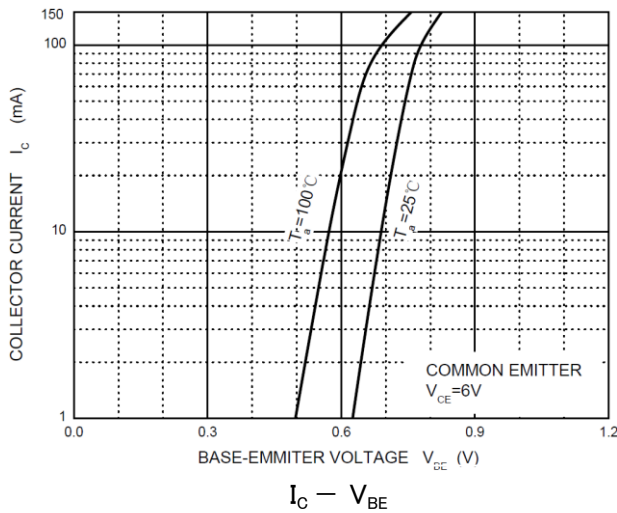
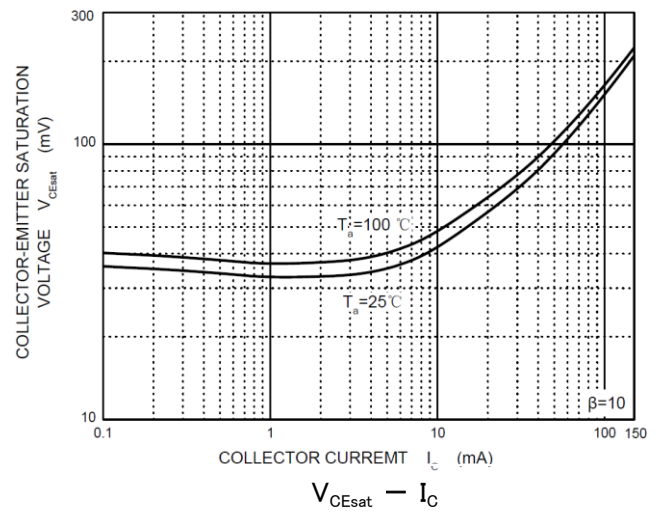
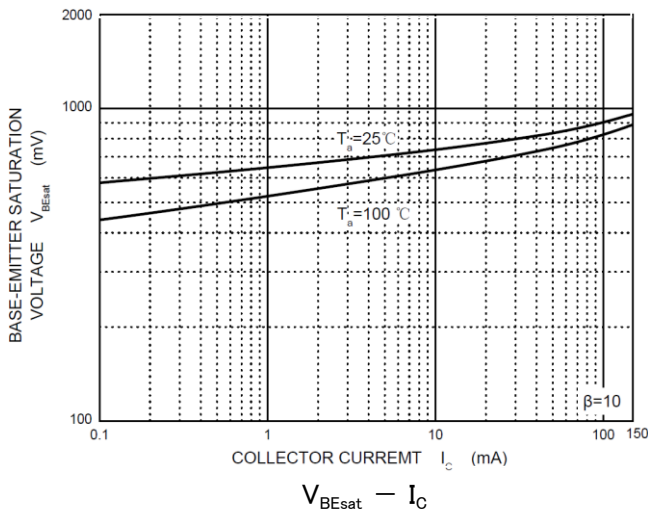
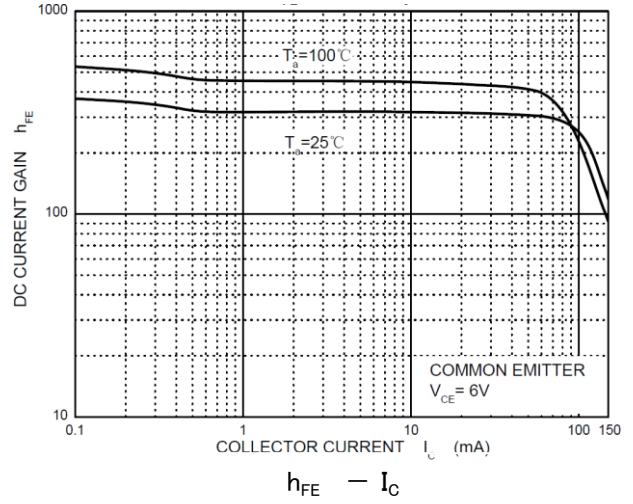
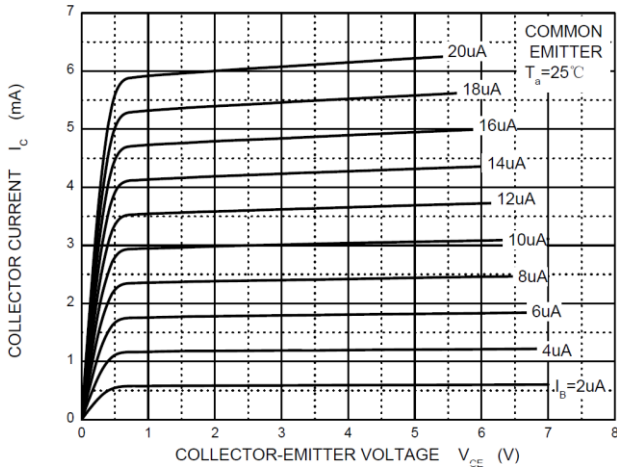
Electrical Characteristics @ 25°C Unless Otherwise Specified

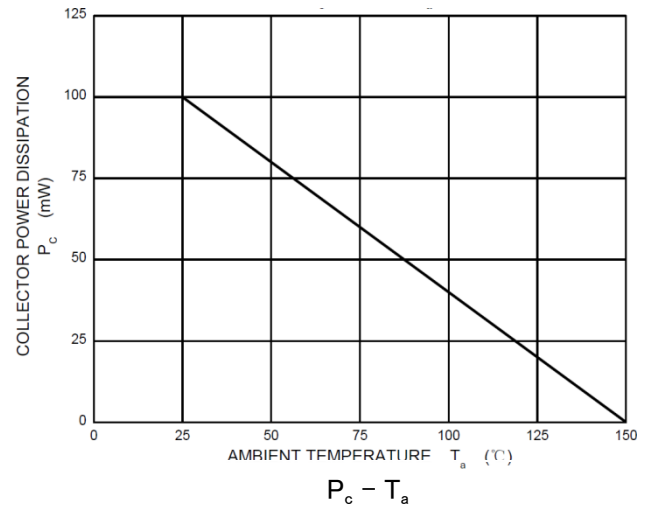
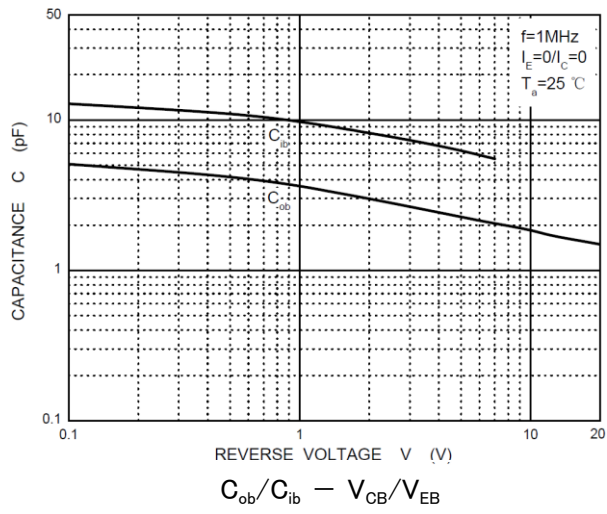
Symbol	Parameter	Test Conditions	Min	Typ	Max	Units
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=1mA, I_B=0$	50			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C=50\mu A, I_E=0$	60			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=50\mu A, I_C=0$	7			V
I_{CBO}	Collector Cutoff Current	$V_{CB}=60V, I_E=0$			0.1	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=7V, I_C=0$			0.1	μA
h_{FE}	DC Current Gain	$V_{CE}=6V, I_C=1mA$	120		560	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=50mA, I_B=5mA$			0.4	V
f_T	Current Gain-Bandwidth Product	$V_{CE}=12V, I_C=2mA, f=100MHz$		180		MHz
C_{ob}	Output Capacitance	$V_{CB}=12V, I_E=0, f=1MHz$			3.5	pF

Classification of h_{FE}

Rank	Q	R	S
Range	120~270	180~390	270~560

Typical Characteristics





Ordering Information

Device	Package	Shipping	Tape wide	Emboss pitch	Tape specification	Notes
2SC5658	SOT723	Tape & Reel 8000pcs /7" Reel	8mm	4mm	Conductive	

Package Dimensions

Package outline : SOT723

SYMBOL	DIMENSIONS IN MILLIMETER	
	MIN	MAX
A	0.430	0.500
A1	0.000	0.050
b	0.170	0.270
b1	0.270	0.370
c	0.080	0.150
D	1.150	1.250
E	1.150	1.250
E1	0.750	0.850
e	0.800 TYP.	
θ	0°	7°

Notice:

- Lead plating: Pb free solder
- Lead thickness includes solder plating
- Lead frame: CAC-5
- Other Tolerance: ±0.05
- Dimensions are exclusive of Burrs, Mold Flash and Tie Bar extrusions
- Unit: mm

NOTICE

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