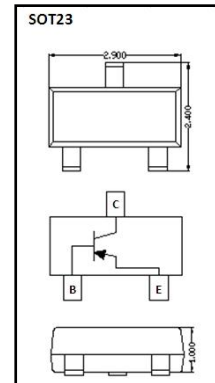


DATA SHEET

S8550

- ◇ Capable of 300mWatts of Power Dissipation
- ◇ Operating and Storage Junction Temperatures: -55°C to 150°C
- ◇ Surface Mount SOT-23 Package
- ◇ RoHS compliant / Green EMC
- ◇ Collector current: $I_C=0.5A$

Device Marking Code	
S8550	2TY



MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-25	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-500	mA
P_C	Collector Power Dissipation	300	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	417	°C/W
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	Max	Units
V_{CEO}	Collector-emitter breakdown voltage	$I_C=-1mA, I_B=0$	-25		V
V_{CBO}	Collector-base breakdown voltage	$I_C=-100\mu A, I_E=0$	-40		V
V_{EBO}	Emitter-base breakdown voltage	$I_E=-100\mu A, I_C=0$	-5.0		V
I_{CBO}	Collector cutoff current	$V_{CB}=-40V, I_E=0V$		-100	nA
I_{EBO}	Emitter cut-off current	$V_{EB}=-3V, I_C=0$		-100	nA

I_{CEO}	Collector cut-off current	$V_{CE}=-20V, I_B=0$		-100	nA
h_{FE}	DC current gain	$h_{FE(1)} I_C=-50mA, V_{CE}=-1V$ $h_{FE(2)} I_C=-500mA, V_{CE}=-1V$	120 50	400	
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C=-500mA, I_B=-50mA$		-0.6	V
$V_{BE(sat)}$	Base-emitter saturation voltage	$I_C=-500mA, I_B=-50mA$		-1.2	V
f_T	Transition frequency	$I_C=-20mA,$ $V_{CE}=-6V, f=30MHz$	150		MHZ

CLASSIFICATION OF $h_{FE(1)}$

Rank	L	H
Range	120-200	200-350

Curve Characteristics

Fig. 1 - Static Characteristics

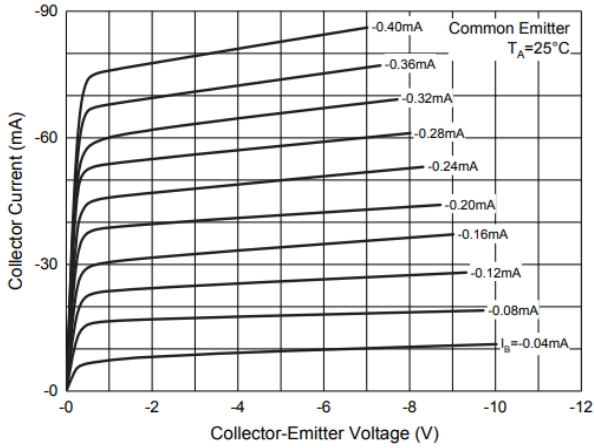


Fig. 2 - DC Current Gain Characteristics

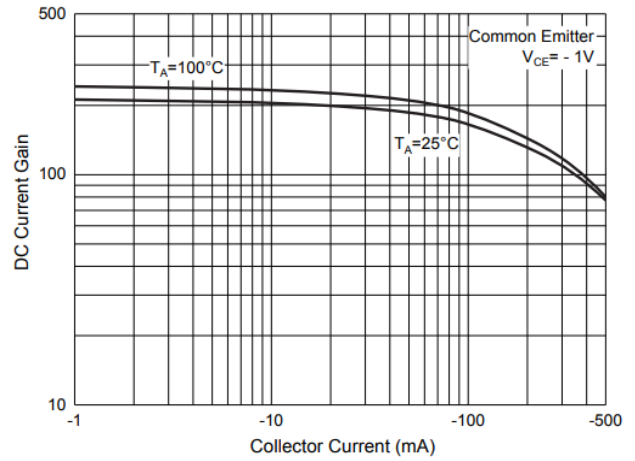


Fig. 3 - Base-Emitter Saturation Voltage Characteristics

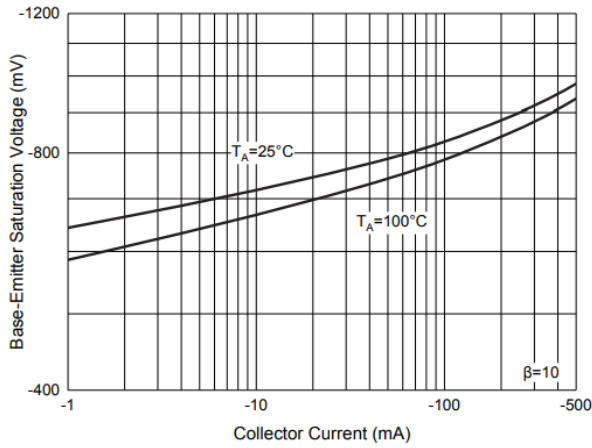


Fig. 4 - Collector-Emitter Saturation Voltage Characteristics

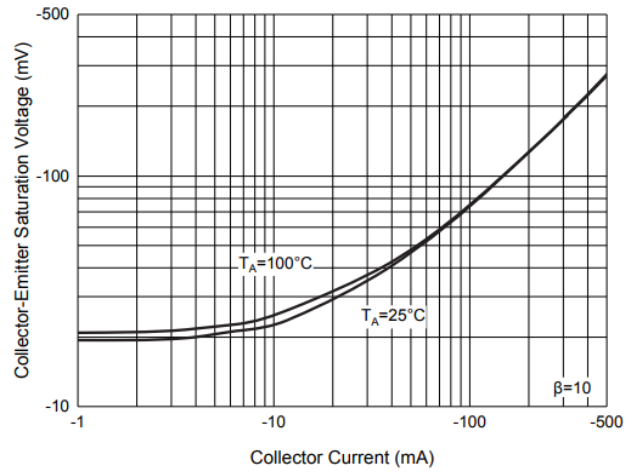


Fig. 5 - Base-Emitter Voltage Characteristics

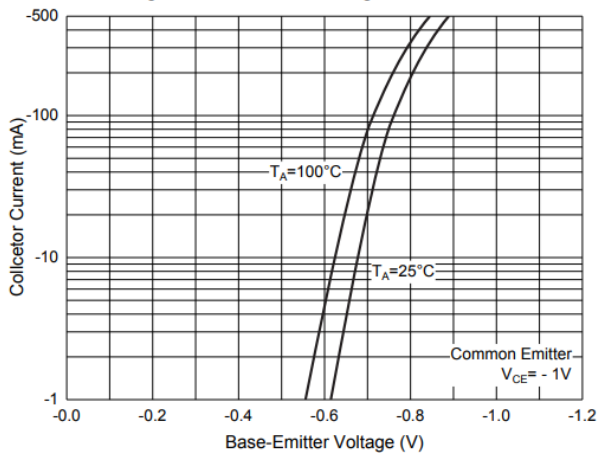
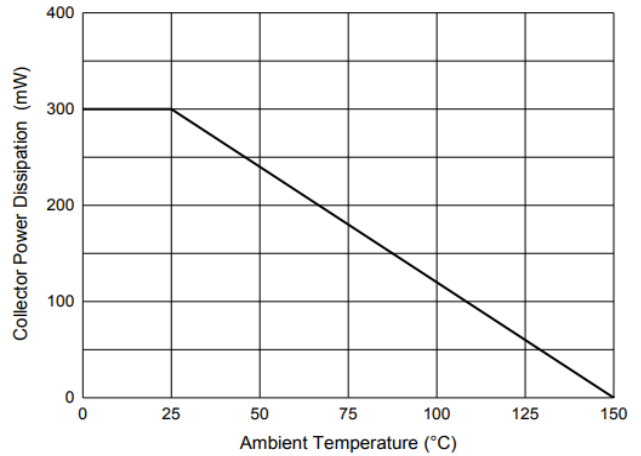


Fig. 6 - Collector Power Derating Curve

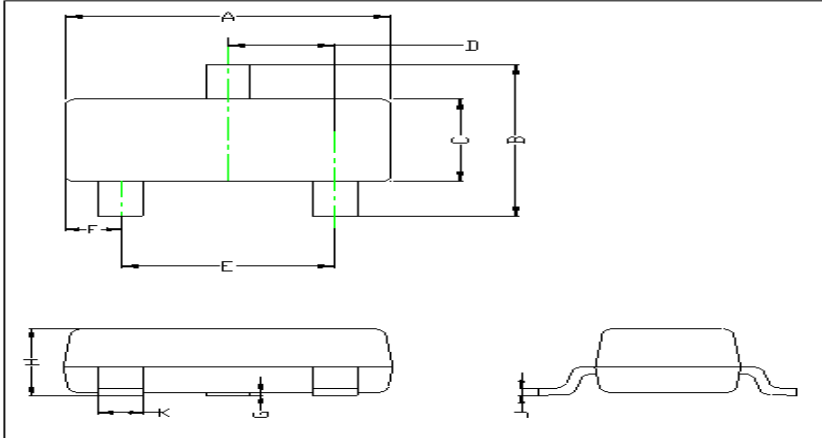


ORDERING INFORMATION

Device	Package	Shipping	Tape wide	Emboss pitch	Tape specification	Notes
S8550	SOT23	Tape & Reel 3000pcs /7" Reel	8mm	4mm	Conductive	

PACKAGE DIMENSIONS

Package Outline : SOT23



Symbol	Dimensions in mm	
	Min.	Max.
A	2.800	3.040
B	2.100	2.640
C	1.200	1.400
D	0.890	1.030
E	1.780	2.050
F	0.450	0.600
G	0.013	0.100
H	0.900	1.110
J	0.090	0.180
K	0.370	0.510

Note:
 1. Halogen free ,EMC
 2. Pb free solder
 3. Lead thickness solder plating
 4. Lead frame CAC-5
 5. Other Tolerance ± 0.05
 6. Dimensions are exclusive of Burrs Mold Flash and Tie Bar extrusions
 7. Unit :mm

SOT23 Package Outline