

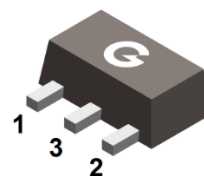
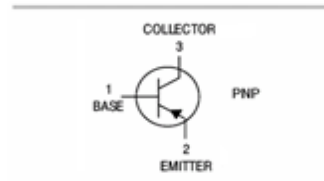
Features

- Adoption of MBIT processes
- Low collector-to-emitter saturation voltage
- Fast switching speed
- Large current capacity and wide ASO
- RoHS compliant with Halogen-free

HF

Mechanical Data

- Case: SOT-89
- Molding compound, UL flammability classification rating 94V-0
- Terminals: Matte tin plated leads, solderable per MIL-STD-202, Method 208



SOT-89

Ordering Information

Part Number	Package	Shipping	Marking Code
GSS6050P-A	SOT-89	1000 pcs / Tape & Reel	6050
GSS6050P-B	SOT-89	1000 pcs / Tape & Reel	6050
GSS6050P-C	SOT-89	1000 pcs / Tape & Reel	6050

Maximum Ratings (@T_A=25°C unless otherwise specified)

Symbol	Parameter	Value	Units
MAXIMUM RATINGS			
V _{CBO}	Collector-Base Voltage	-60	V
V _{CEO}	Collector-Emitter Voltage	-50	V
V _{EBO}	Emitter-Base Voltage	-6	V
I _C	Collector Current - Continuous	-3	A
I _{CM}	Peak Pulse Current	-6	A
Thermal Characteristic			
P _D	Power Dissipation T _a =25°C	1	W
T _J	Junction Temperature	150	°C
T _{STG}	Junction and Storage Temperature	-55 to +150	°C

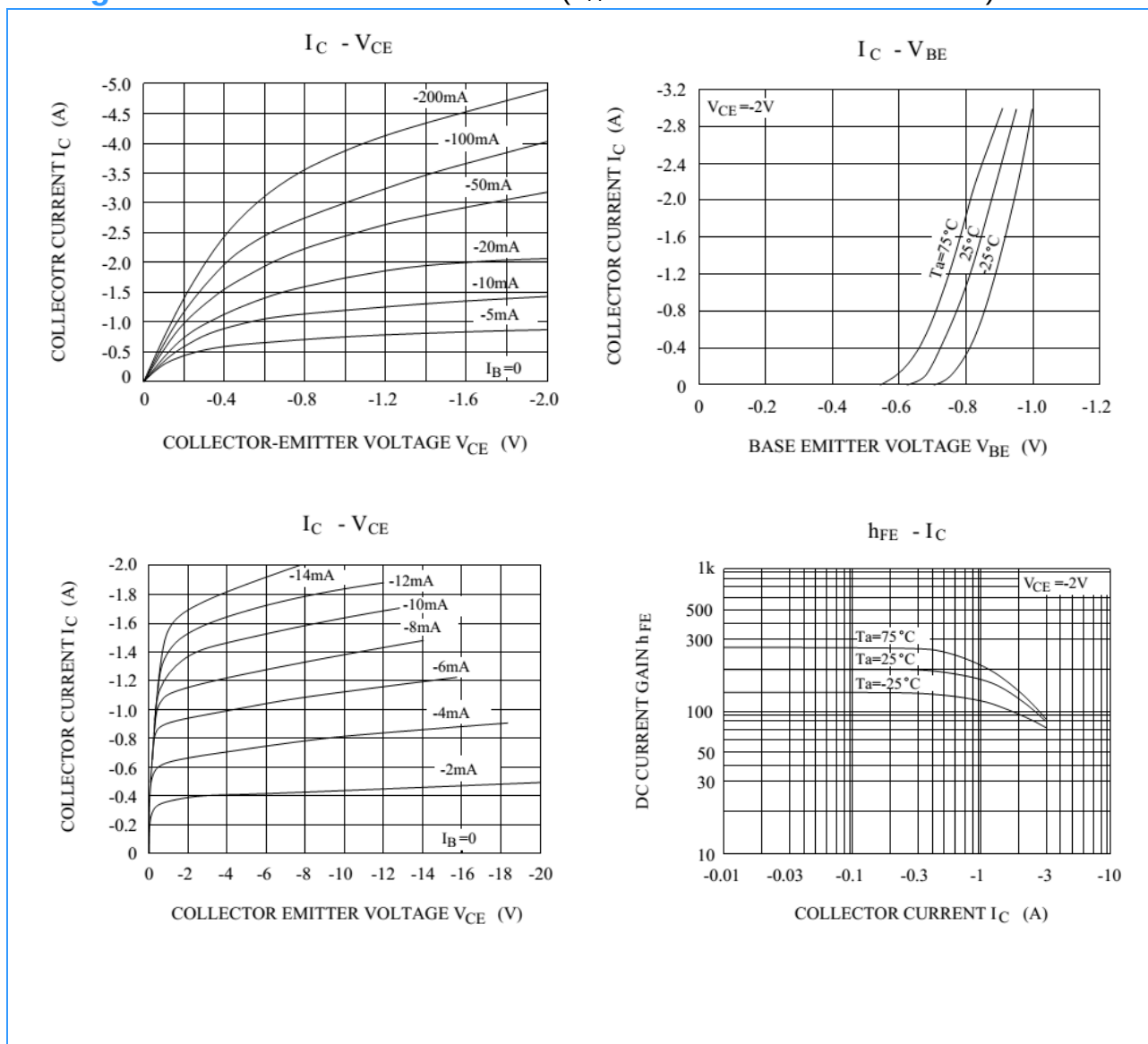
Electrical Characteristics (@T_A=25°C unless otherwise specified)

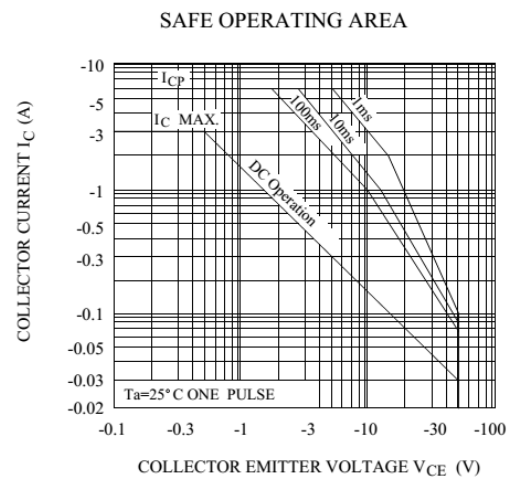
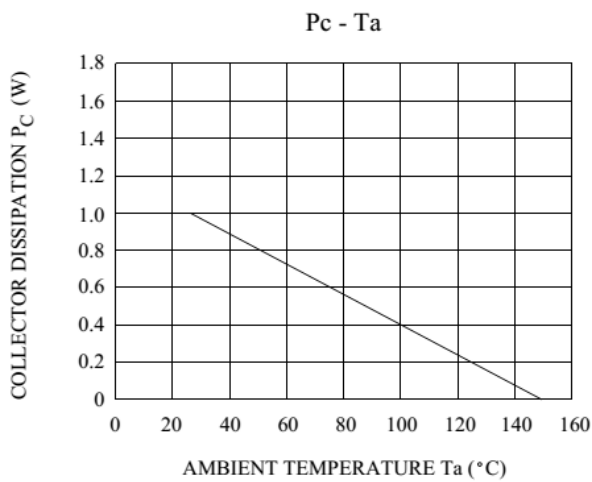
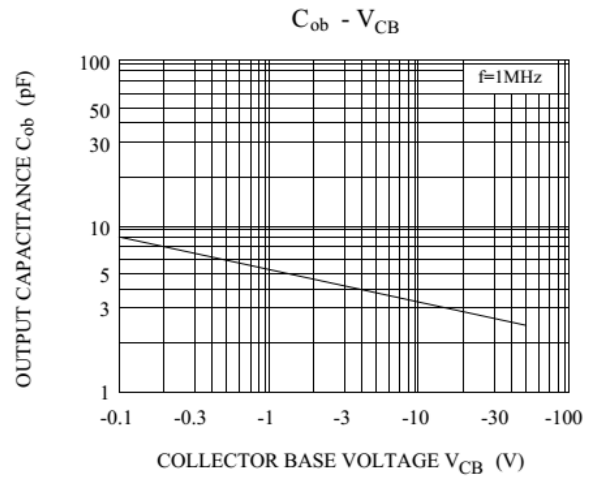
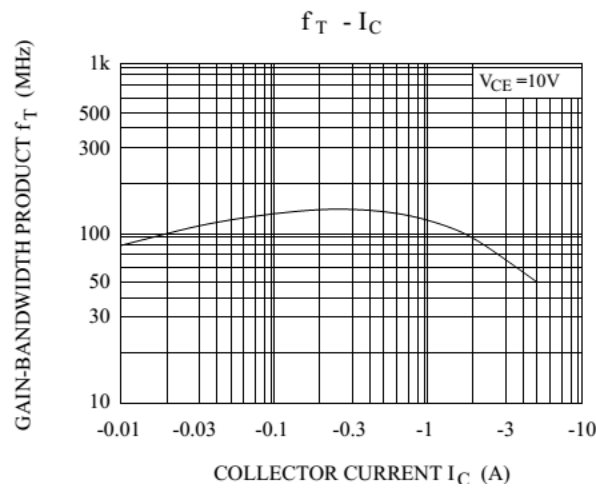
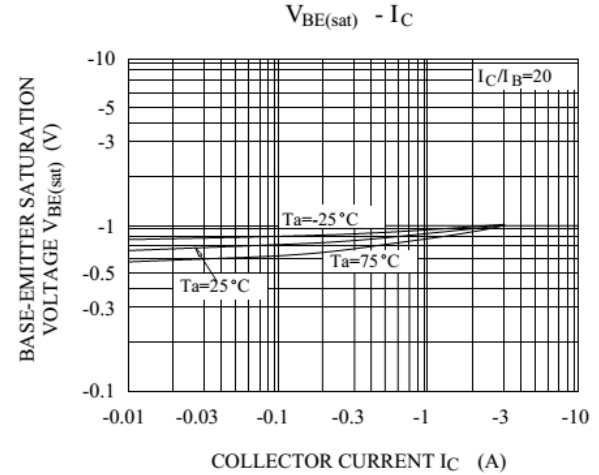
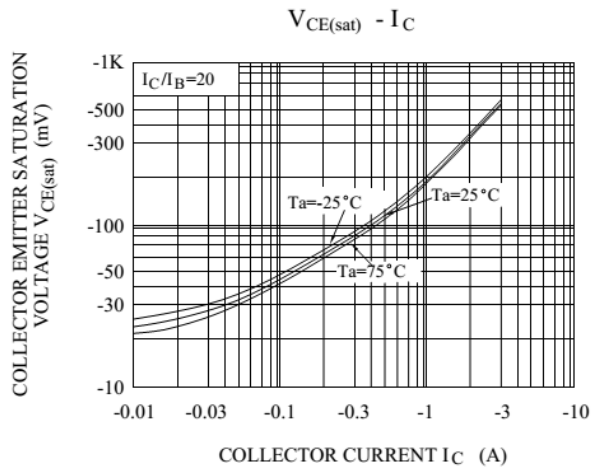
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector cut-off current	I _{CBO}	V _{CB} =-40V, I _E =0	-	-	-1	μA
Emitter cut-off current	I _{EBO}	V _{EB} =-4V, I _C =0	-	-	-1	μA
DC Current Gain (Note 2)	h _{FE}	V _{CE} = -2V, I _C = -100mA V _{CE} = -2V, I _C = -3A	100 35	- -	400 -	-
Collector-Emitter Saturation Voltage (Note 2)	V _{CE(sat)}	I _C =-2A, I _B =-100mA	-	-0.35	-0.7	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =-2A, I _B =-100mA	-	-0.94	-1.2	V
Base-emitter voltage	V _{BE(on)}	I _C =500mA, V _{CE} =10V	-	-	1.0	V
Transition frequency	f _T	V _{CE} =-10V, I _C =-50mA	-	150	-	MHz
Collector output capacitance	C _{obo}	V _{CB} =-10V, f=1MHz	-	39	-	pF

CLASSIFICATION OF h_{FE}

Rank	A	B	C
Range	100-200	140-280	200-400

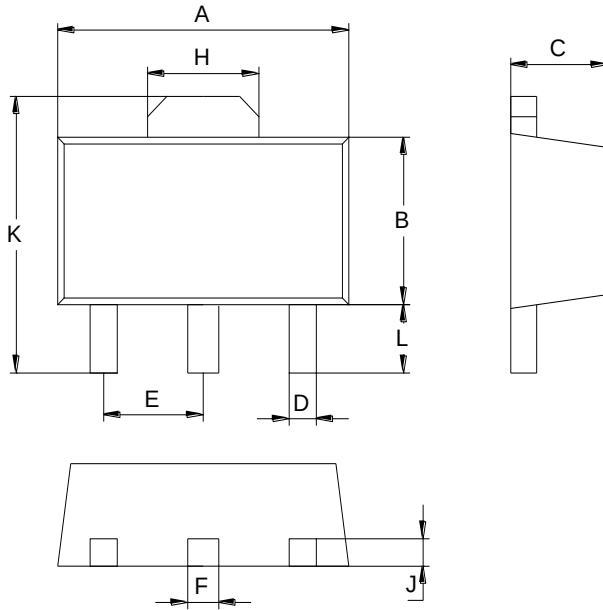
Ratings and Characteristic Curves (T_A=25°C unless otherwise noted)





Package Outline Dimensions(unit:mm)

SOT-89



SOT-89		
Dim	Min	Max
A	4.30	4.70
B	2.25	2.65
C	1.30	1.70
D	0.30	0.50
E	1.40	1.60
F	0.38	0.58
H	1.60	1.80
J	0.30	0.50
L	0.90	1.10
K	3.95	4.35

SOLDERING FOOTPRINT(unit:mm)

SOT-89

