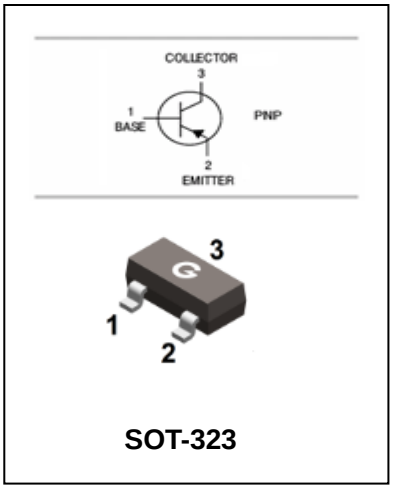
PNP Silicon Epitaxial Planar Transistor MMSTA92

FEATURES

- Power dissipation.(P_C=200mW)
- Epitaxial planar die construction
- Complementary to MMSTA42
- Also available in lead free version
- RoHS compliant with Halogen-free

HF



SOT-323

APPLICATIONS

- General purpose application and switching application

ORDERING INFORMATION

Type No.	Marking	Package Code
MMSTA92	K3R	SOT-323

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-300	V
V_{CEO}	Collector-Emitter Voltage	-300	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-100	mA
P_C	Collector Dissipation	200	mW
T_j,T_{stg}	Junction and Storage Temperature	-55 to +150	℃

PNP Silicon Epitaxial Planar Transistor MMSTA92

ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-100μA,I_E=0	-300			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-1mA,I_B=0	-300			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-100μA,I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-200V,I_E=0			-0.25	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-3V,I_C=0			-0.1	μA
DC current gain	h_{FE}	V_{CE}=-10V,I_C=-1mA V_{CE}=-10V,I_C=-10mA V_{CE}=-10V,I_C=-30mA	25 40 25			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-20mA, I_B=-2mA			-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-20mA, I_B=-2mA			-0.9	V
Transition frequency	f_T	V_{CE}=-20V, I_C= -10mA, f=30MHz	50			MHz

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

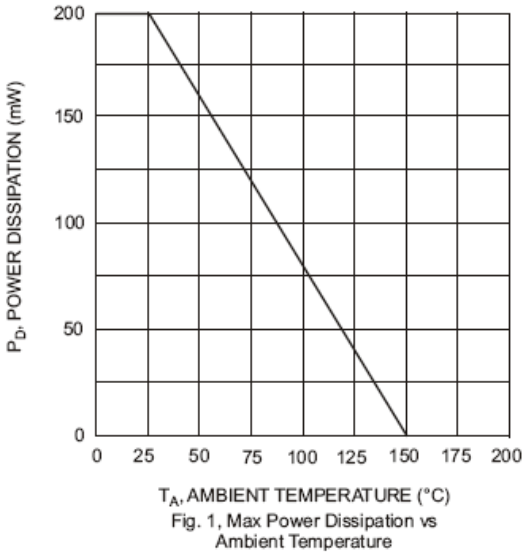


Fig. 1, Max Power Dissipation vs Ambient Temperature

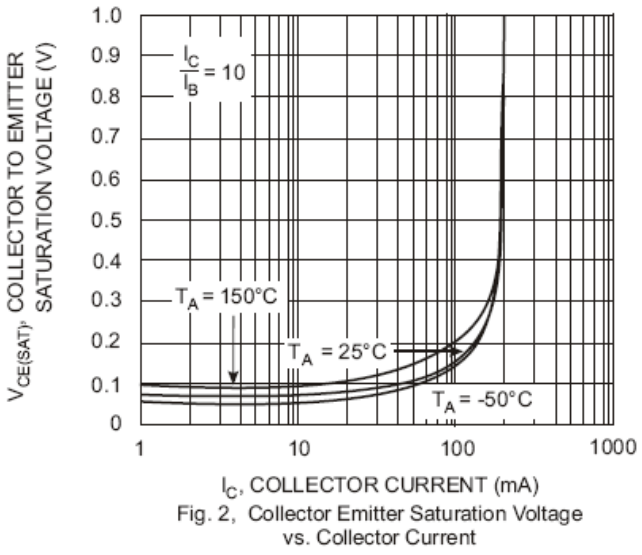


Fig. 2, Collector Emitter Saturation Voltage vs. Collector Current

PNP Silicon Epitaxial Planar Transistor MMSTA92

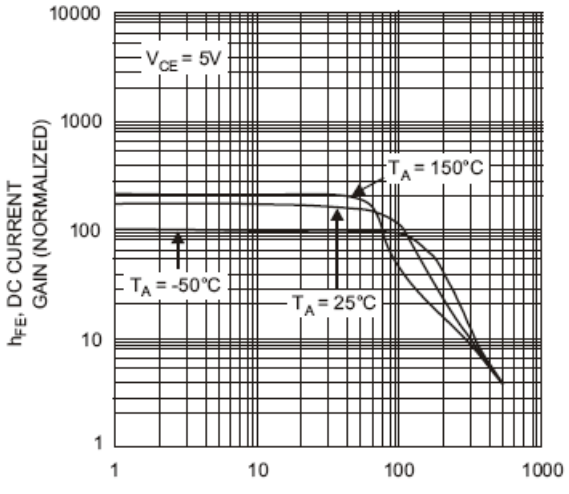


Fig. 3, DC Current Gain vs Collector Current

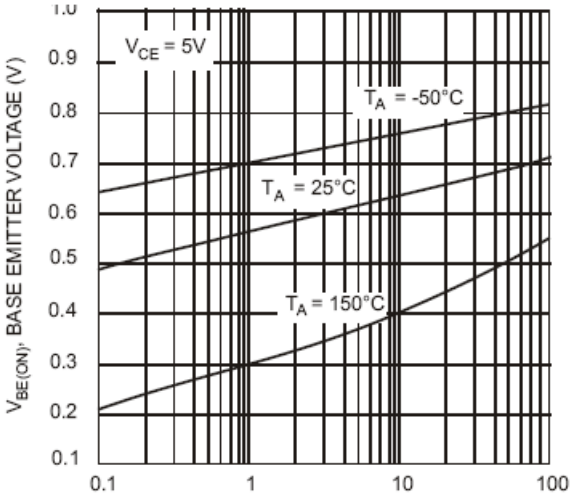


Fig. 4, Base Emitter Voltage vs Collector Current

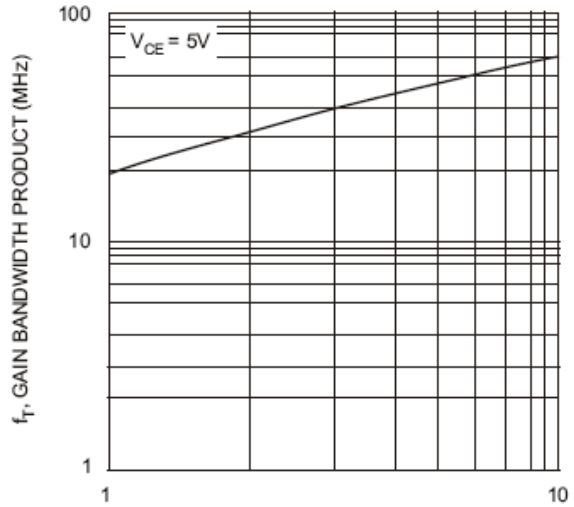
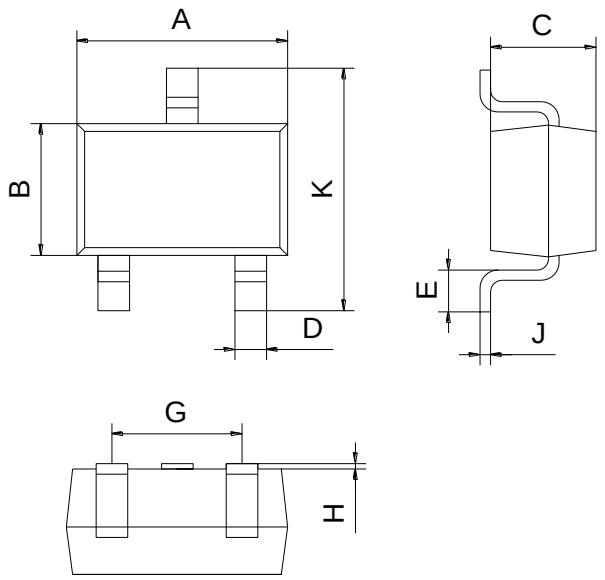


Fig. 5, Gain Bandwidth Product vs Collector Current

PNP Silicon Epitaxial Planar Transistor MMSTA92

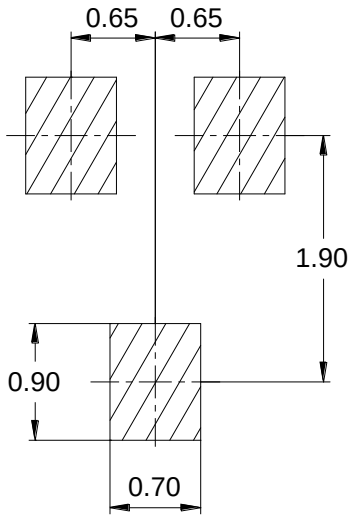
PACKAGE OUTLINE

Plastic surface mounted package SOT-323



SOT-323		
Dim	Min	Max
A	2.00	2.20
B	1.15	1.35
C	0.90	1.10
D	0.15	0.35
E	0.25	0.40
G	1.20	1.40
H	0.02	0.10
J	0.05	0.15
K	2.20	2.40
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit: mm

PACKAGE INFORMATION

Device	Package	Shipping
MMSTA92	SOT-323	3000 pcs / Tape & Reel