

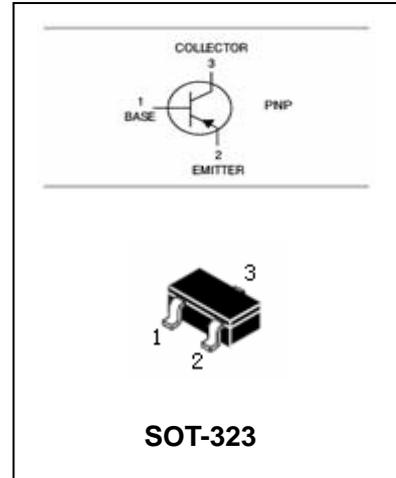


PNP Silicon Epitaxial Planar Transistor

MMSTA92

FEATURES

- Power dissipation.($P_C=200\text{mW}$)
- Epitaxial planar die construction.
- Complementary to MMSTA42.
- Also available in lead free version.



APPLICATIONS

- General purpose application and switching application.

ORDERING INFORMATION

Type No.	Marking	Package Code
MMSTA92	K3R	SOT-323

MAXIMUM RATING @ $T_a=25^\circ\text{C}$ 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	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu A, I_E=0$	-300			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1mA, I_B=0$	-300			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu A, I_C=0$	-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°C unless otherwise specified

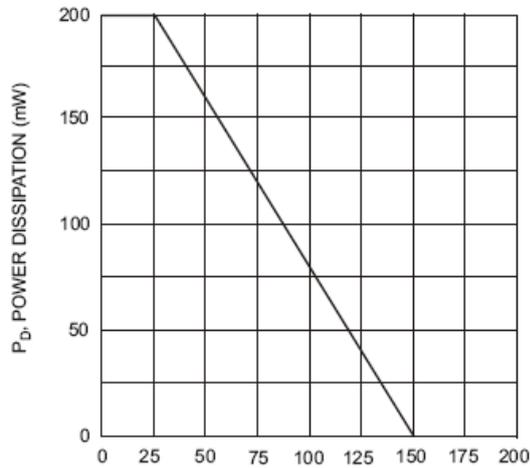


Fig. 1, Max Power Dissipation vs Ambient Temperature

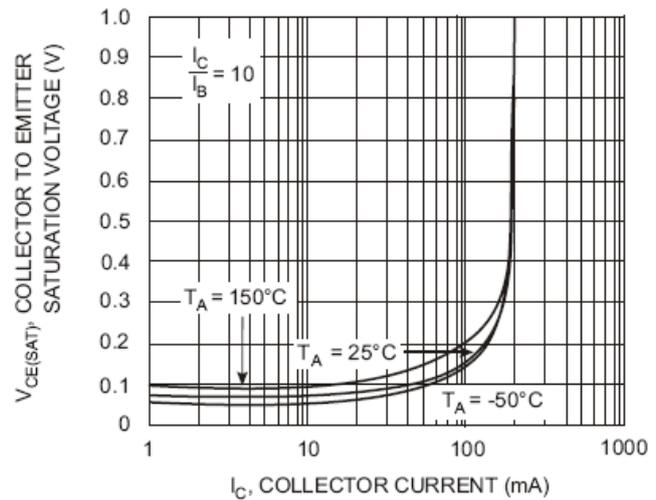


Fig. 2, Collector Emitter Saturation Voltage vs. Collector Current



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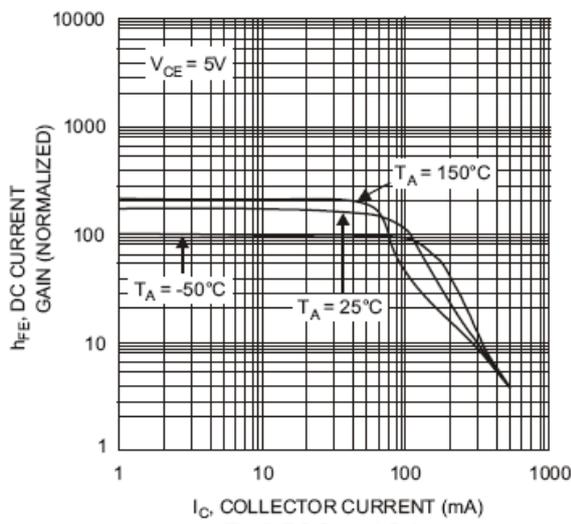


Fig. 3, DC Current Gain vs Collector Current

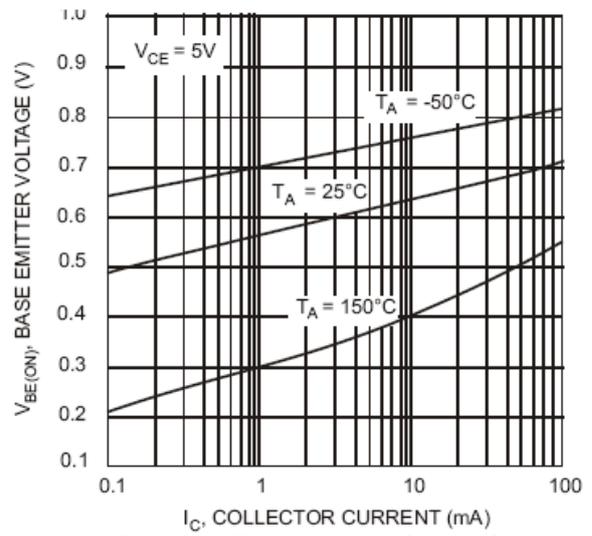


Fig. 4, Base Emitter Voltage vs Collector Current

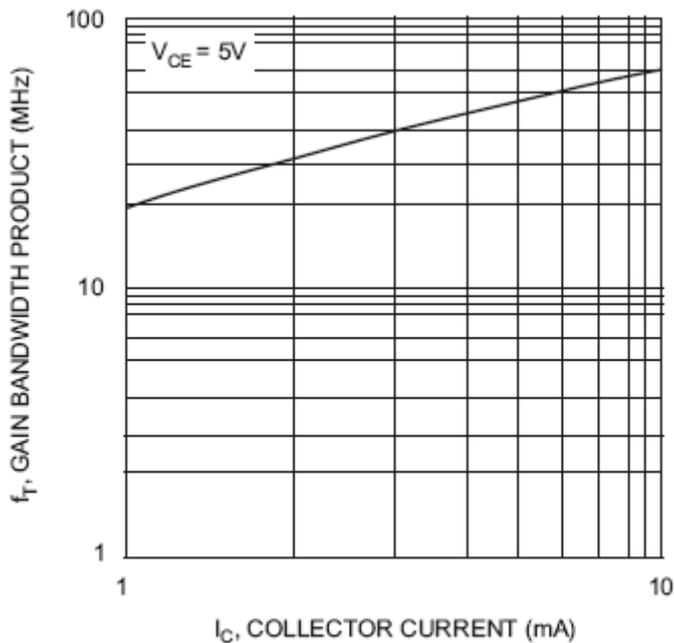


Fig. 5, Gain Bandwidth Product vs Collector Current

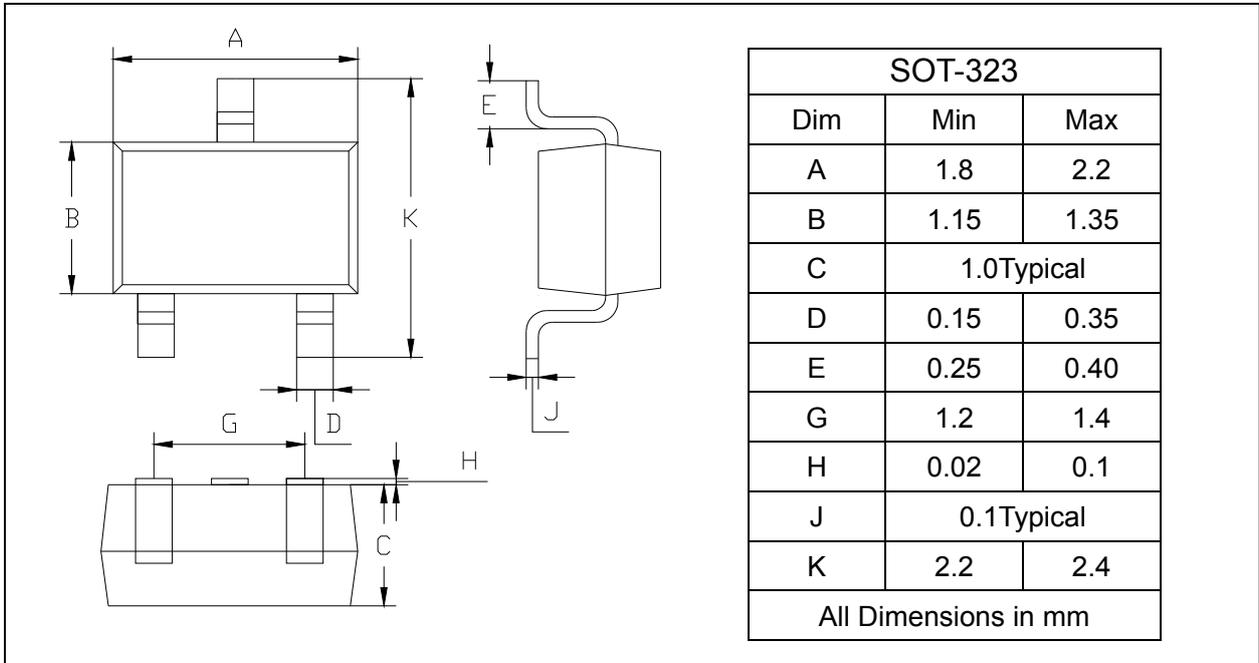
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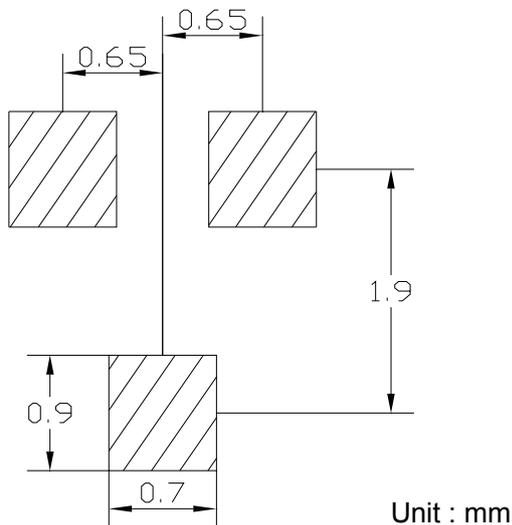
PACKAGE OUTLINE

Plastic surface mounted package

SOT-323



SOLDERING FOOTPRINT



PACKAGE INFORMATION

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