

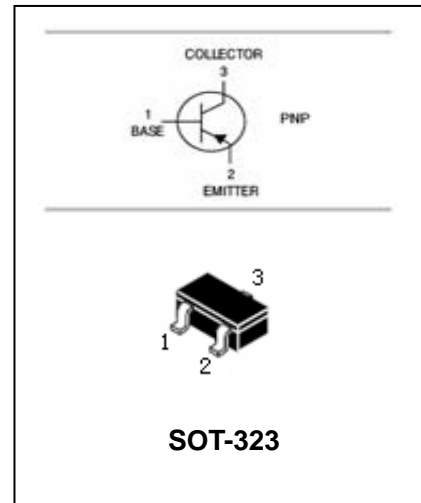


## PNP Silicon Epitaxial Planar Transistor

## MMST2907A

### FEATURES

- Power dissipation.( $P_C=200\text{mW}$ )
- Epitaxial planar die construction.
- Complementary NPN type MMST2222A.



### APPLICATIONS

- General purpose application.

### ORDERING INFORMATION

Type No.	Marking	Package Code
MMST2907A	K3F	SOT-323

### MAXIMUM RATING @ $T_a=25^\circ\text{C}$ unless otherwise specified

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	-60	V
$V_{CEO}$	Collector-Emitter Voltage	-60	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current -Continuous	-600	mA
$P_C$	Collector Dissipation	200	mW
$R_{\theta JA}$	Thermal Resistance,Junction to Ambient	625	$^\circ\text{C}/\text{W}$
$T_j, T_{stg}$	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	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-10\mu A, I_E=0$	-60		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-10mA, I_B=0$	-60		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-10\mu A, I_C=0$	-5		V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-50V, I_E=0$		-10	nA
Collector cut-off current	$I_{CEX}$	$V_{CE}=-30V, V_{EB(OFF)}=-0.5V$		-50	nA
Base cut-off current	$I_{BL}$	$V_{CE}=-30V, V_{EB(OFF)}=-0.5V$		-50	nA
DC current gain	$h_{FE}$	$V_{CE}=-10V, I_C=-0.1mA$	75		
		$V_{CE}=-10V, I_C=-1.0mA$	100		
		$V_{CE}=-10V, I_C=-10mA$	100		
		$V_{CE}=-10V, I_C=-150mA$	100	300	
		$V_{CE}=-10V, I_C=-500mA$	50		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-150mA, I_B=-15mA$ $I_C=-500mA, I_B=-50mA$		-0.4 -1.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-150mA, I_B=-15mA$ $I_C=-500mA, I_B=-50mA$		-1.3 -2.6	V
Transition frequency	$f_T$	$V_{CE}=-20V, I_C=-50mA$ $f=100MHz$	200		MHz
Collector output capacitance	$C_{obo}$	$V_{CB}=-10V, I_E=0, f=1MHz$		8	pF
Collector input capacitance	$C_{ibo}$	$V_{EB}=-2.0V, I_C=0, f=1MHz$		30	pF
Turn-on time	$t_{on}$	$V_{CC}=-30V, I_C=-150mA,$ $I_{B1}=-15mA$		45	nS
Delay time	$t_d$			10	nS
Rise time	$t_r$			40	nS
Turn-off time	$t_{off}$	$V_{CC}=-6.0V, I_C=-150mA,$ $I_{B1}=I_{B2}=-15mA$		100	nS
Storage time	$t_s$			80	nS
Fall time	$t_f$			30	nS



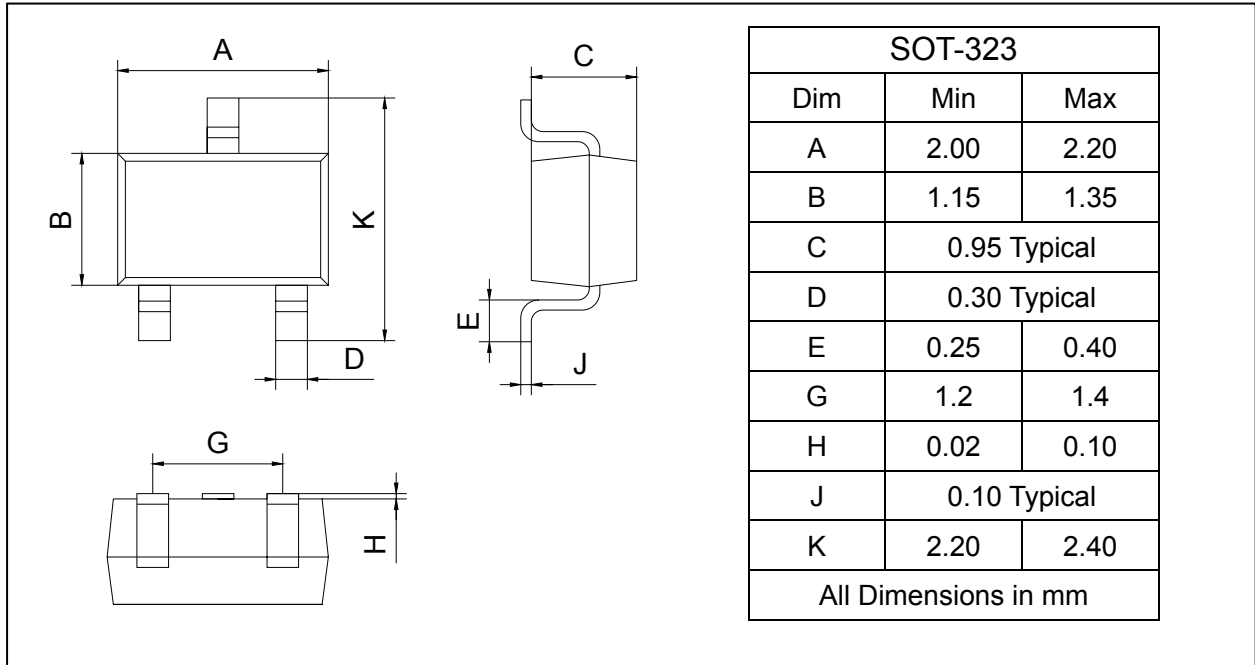
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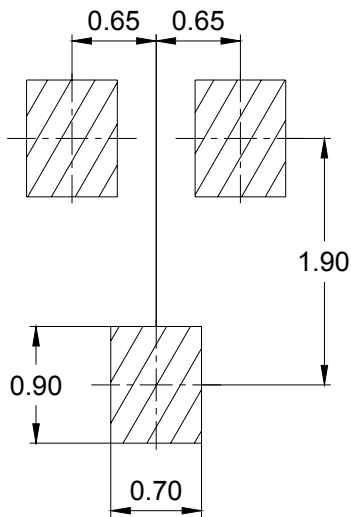
**PACKAGE OUTLINE**

Plastic surface mounted package

SOT-323



**SOLDERING FOOTPRINT**



**PACKAGE INFORMATION**

Device	Package	Shipping
MMST2907A	SOT-323	3000/Tape&Reel