

### MMST5551 TRANSISTOR (NPN)

#### FEATURES

Power dissipation

$P_{CM}$ : 0.2 W ( $T_{amb}=25^{\circ}C$ )

Collector current

$I_{CM}$ : 0.2 A

Collector-base voltage

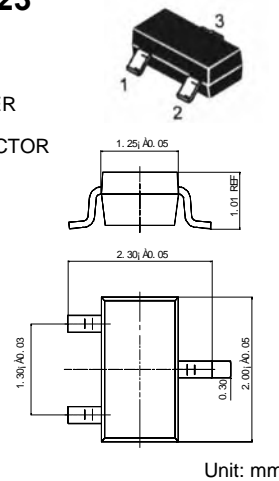
$V_{(BR)CBO}$ : 160 V

Operating and storage junction temperature range

$T_J, T_{stg}$ :  $-55^{\circ}C$  to  $+150^{\circ}C$

#### SOT-323

1. BASE
2. EMITTER
3. COLLECTOR



#### ELECTRICAL CHARACTERISTICS ( $T_{amb}=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	180			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	160			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=120V, I_E=0$			50	nA
Emitter cut-off current	$I_{EBO}$	$V_{EB}=3V, I_C=0$			50	nA
DC current gain	$h_{FE(1)}$	$V_{CE}=5V, I_C=1mA$	80			
	$h_{FE(2)}$	$V_{CE}=5V, I_C=-10mA$	80		250	
	$h_{FE(3)}$	$V_{CE}=5V, I_C=50mA$	30			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=10mA, I_B=1mA$			0.15	V
	$V_{CE(sat)}$	$I_C=50mA, I_B=5mA$			0.2	V
Base-emitter voltage	$V_{BE(sat)}$	$I_C=10mA, I_B=1mA$			1	V
	$V_{BE(sat)}$	$I_C=50mA, I_B=5mA$			1	V
Transition frequency	$f_T$	$V_{CE}=10V, I_C=10mA, f=100MHz$	100		300	MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1MHz$			6	pF
Noise figure	NF	$V_{CE}=5V, I_C=0.2mA, f=1KHz, R_g=10\Omega$			8	dB

Marking	K4N
---------	-----