

## SOT-323 Plastic-Encapsulate Transistors

**MMST3906** TRANSISTOR (PNP)

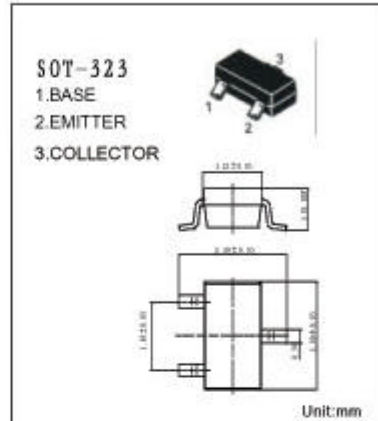
### FEATURES

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

Collector current  
 $I_{CM}$ : -0.2 A

Collector-base voltage  
 $V_{(BR)CBO}$ : -40 V

Operating and storage junction temperature range  
 $T_J, T_{stg}$ :  $-55^{\circ}C$  to  $+150^{\circ}C$



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

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10 \mu A, I_E = 0$	-40		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1 mA, I_B = 0$	-40		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10 \mu A, I_C = 0$	-5		V
Collector cut-off current	$I_{CBO}$	$V_{CE} = -40 V, I_E = 0$		-0.1	$\mu A$
Collector cut-off current	$I_{CEO}$	$V_{CE} = -40 V, I_B = 0$		-0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5 V, I_C = 0$		-0.1	$\mu A$
DC current gain	$h_{FE(1)}$	$V_{CE} = -1 V, I_C = -10 mA$	100	300	
	$h_{FE(2)}$	$V_{CE} = -1 V, I_C = -50 mA$	60		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -50 mA, I_B = -5 mA$		-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -50 mA, I_B = -5 mA$		-0.95	V
Transition frequency	$f_T$	$V_{CE} = -20 V, I_C = -10 mA$ $f = 100 MHz$	300		MHz
Output Capacitance	$C_{ob}$	$V_{CE} = -5 V, I_C = 0$ $f = 1 MHz$		4.5	pF
Delay time	$t_d$	$V_{CC} = -3 V, I_C = -10 mA$		35	nS
Rise time	$t_r$	$V_{BE(on)} = -0.5 V, I_{B1} = -1 mA$		35	nS
Storage time	$t_s$	$V_{CC} = -3 V, I_C = -10 mA$		225	nS
Fall time	$t_f$	$I_{B1} = I_{B2} = -1 mA$		75	nS

Marking: K5N