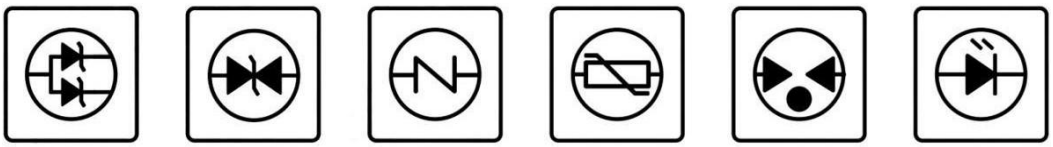
MSKSEMI 美森科
SEMICONDUCTOR



MMBT2907AM3T5G-MS

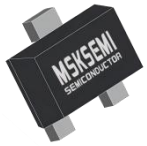
Product specification

General Features

Epitaxial planar die construction

Complementary PNP Type available(MMBT2222AM)

Reference News

PACKAGE OUTLINE	Foot position analysis	Marking
 SOT-723	1. BASE 2.EMITTER 3.COLLECTOR	AC

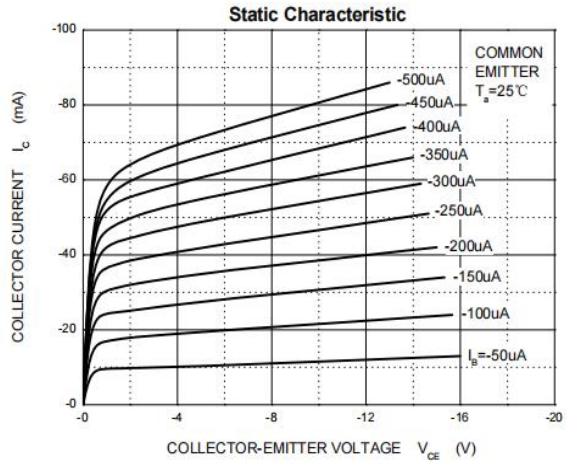
MAXIMUM RATINGS(Ta = 25ºC)

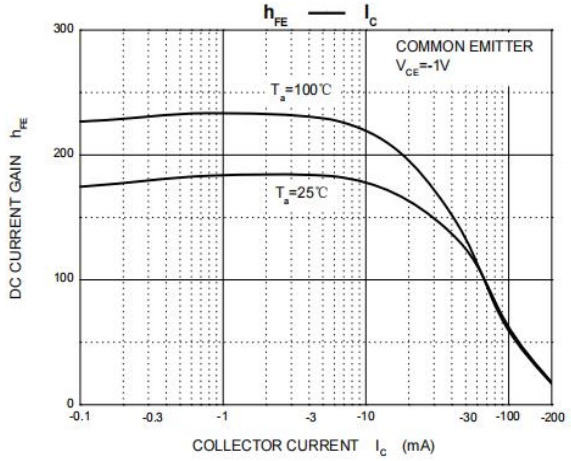
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-0.5	A
P_C	Power Dissipation	100	mW
$R_{\Theta JA}$	Thermal Resistance from Junction to Ambient	1250	℃/W
T_J	Junction Temperature	150	℃
T_{stg}	storage Temperature	-55~+150	℃

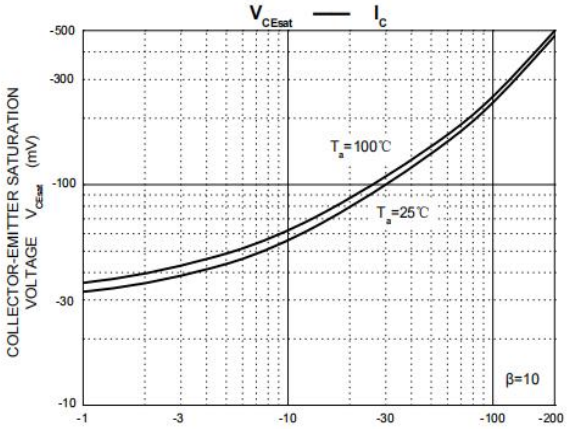
ELECTRICAL CHARACTERISTICS (Ta=25 ℃ unless otherwise

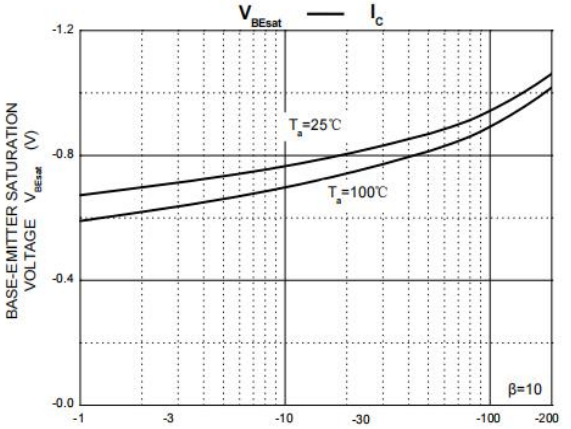
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-10μA,I_E=0	-60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-1mA,I_B=0	-60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-10μA,I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-40V,I_E=0			-100	nA
Collector cut-off current	I_{CEX}	V_{CE}=-30V,$V_{EB(off)}$=-3V			-50	A
Emitter cut-off current	I_{EBO}	V_{EB}=-5V,I_C=0			-100	nA
DC current gain	$h_{FE(1)}$	V_{CE}=-1V,I_C=-10mA	100		300	
	$h_{FE(2)}$	V_{CE}=-1V,I_C=-50mA	60			
	$h_{FE(3)}$	V_{CE}=-2V,I_C=-100mA	30			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-50mA,I_B=-5mA			-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-50mA,I_B=-5mA			-0.95	V
Transition frequency	f_T	V_{CE}=-20V,I_C=-10mA,f=100MHz	300			MHz
Delay time	t_d	V_{CC}=-3V,$V_{BE(off)}$=-0.5V, I_C=-10mA, I_{B1}=I_{B2}=-1mA			35	ns
Rise time	t_r				35	ns
Storage time	t_s	V_{CC}=-3V,I_C=-10mA I_{B1}=I_{B2}=-1mA			225	ns
Fall time	t_f				75	ns

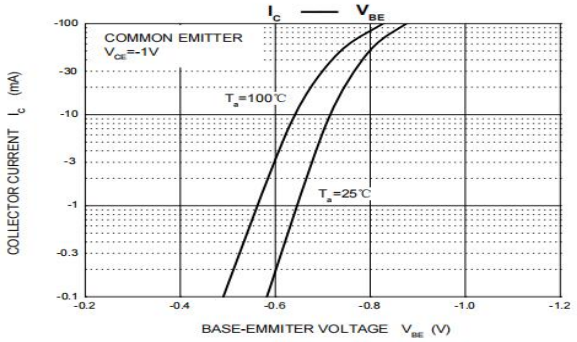
ELECTRICAL CHARACTERISTICS CURVES

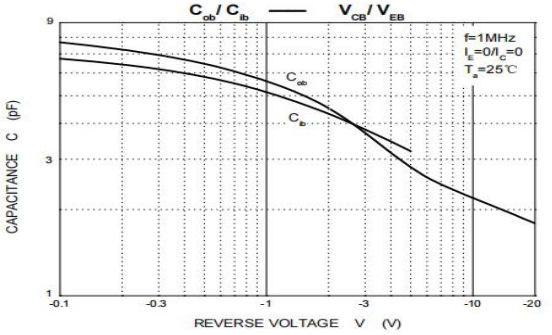


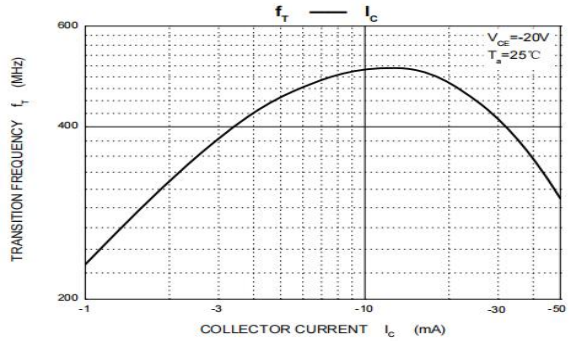


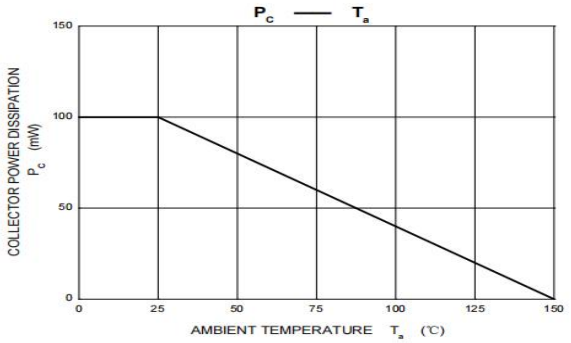




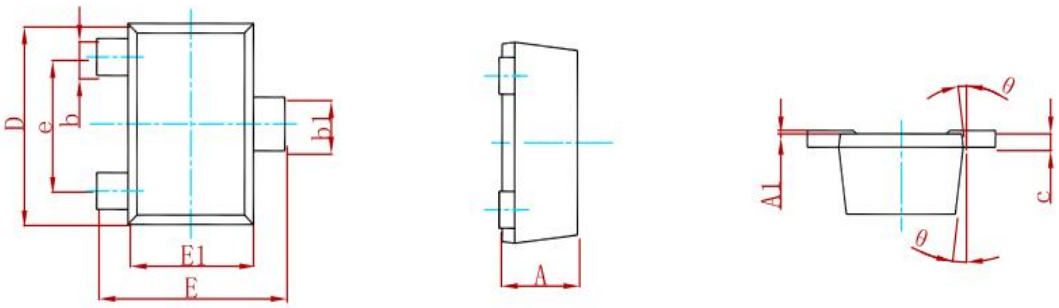






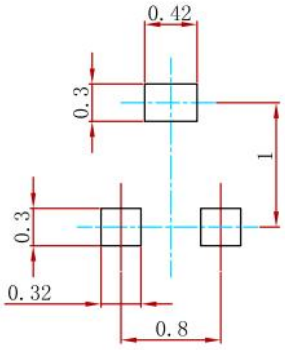


PACKAGE MECHANICAL DATA



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.430	0.500	0.017	0.020
A1	0.000	0.050	0.000	0.002
b	0.170	0.270	0.007	0.011
b1	0.270	0.370	0.011	0.015
c	0.080	0.150	0.003	0.006
D	1.150	1.250	0.045	0.049
E	1.150	1.250	0.045	0.049
E1	0.750	0.850	0.030	0.033
e	0 800TYP		0 031TYP	
θ	7° REF.		7° REF .	

Suggested Pad Layout



Note:

1.Controlling dimension:in millimeters.

2.General tolerance:±0.05mm.

3.The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
MMBT2907AM3T5G-MS	SOT-723	8000

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