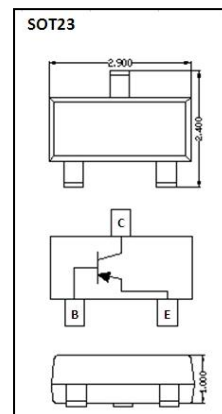


DATA SHEET

MMBT2907A

- ◇ Capable of 250 mWatts of Power Dissipation and 200mA I_c
- ◇ Operating and Storage Junction Temperatures: -55°C to 150°C
- ◇ Surface Mount SOT-23 Package
- ◇ RoHS compliant / Green EMC

Device Marking Code	
MMBT2907A	2F



Maximum Ratings ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CB0}	Collector-Base Voltage	-60	V
V_{CE0}	Collector-Emitter Voltage	-60	V
V_{EB0}	Emitter-Base Voltage	-5	V
I_c	Collector Current	-600	mA
P_c	Collector Power Dissipation	250	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	500	$^{\circ}\text{C}/\text{W}$
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	$-55 \sim +150$	$^{\circ}\text{C}$

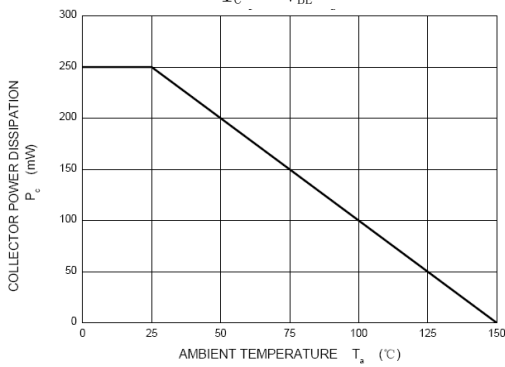
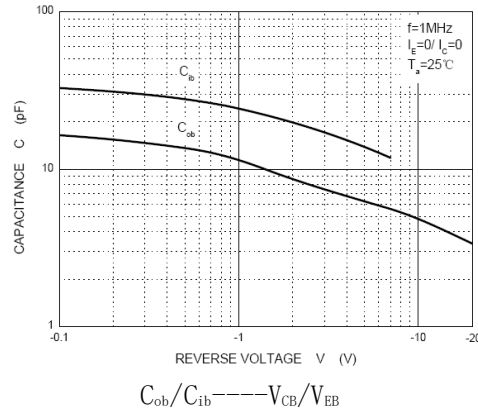
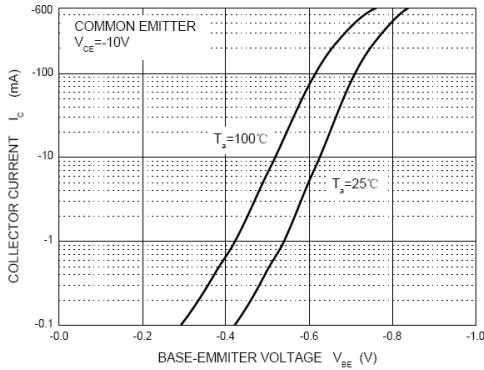
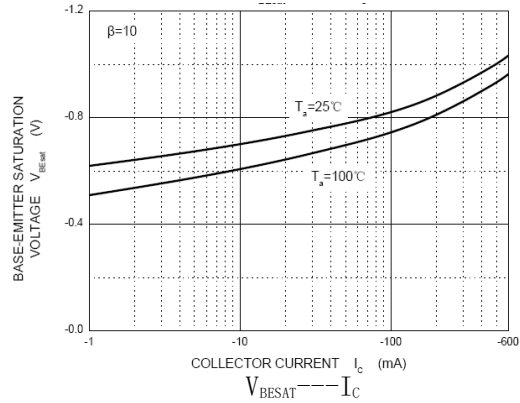
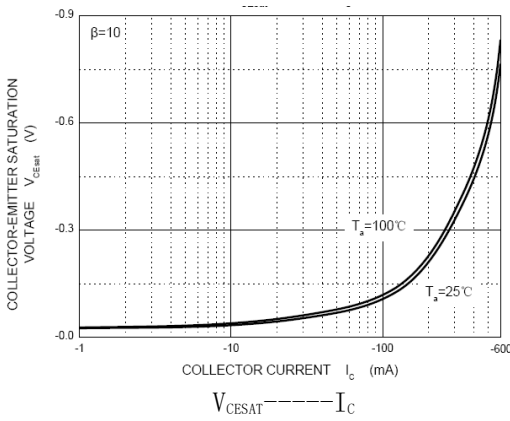
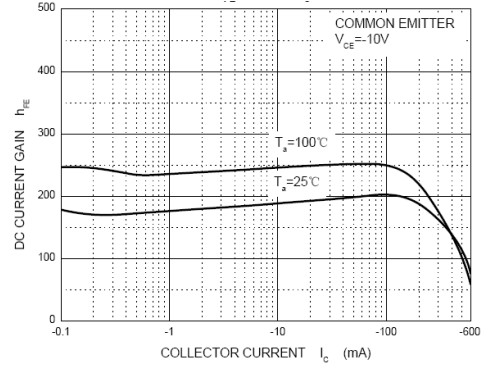
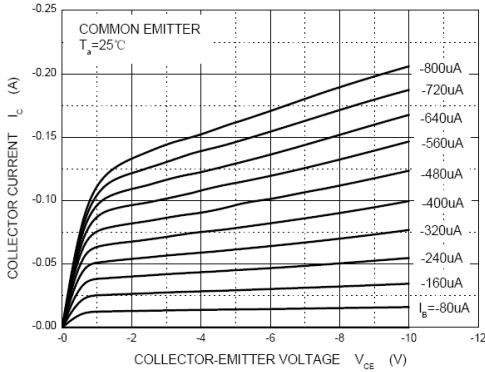
Electrical Characteristics @ 25° C Unless Otherwise Specified

Symbol	Parameter	Test Conditions	Min	Max	Units
V_{CE0}	Collector-Emitter Breakdown Voltage	$I_C=-10mA, I_B=0$	-60		V
V_{CB0}	Collector-Base Breakdown Voltage	$I_C=-10\mu A, I_E=0$	-60		V
V_{EB0}	Emitter-Base Breakdown Voltage	$I_E=-10\mu A, I_C=0$	-5.0		V
I_{CB0}	Collector Cutoff Current	$V_{CB}=-50V, I_E=0V$		-100	nA
I_{CEX}	Collector Cutoff Current	$V_{CE}=-30V, V_{BE}=-0.5V$		-50	nA
I_{BL}	Base Cutoff Current	$V_{CE}=-30V, V_{BE}=-0.5V$		-50	nA
h_{FE}	DC Current Gain	$I_C=-0.1mA, V_{CE}=-10V$	75		
		$I_C=-1.0mA, V_{CE}=-10V$	100		
		$I_C=-10mA, V_{CE}=-10V$	100		
		$I_C=-150mA, V_{CE}=-10V$	100	300	
		$I_C=-500mA, V_{CE}=-10V$	50		
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=-150mA, I_B=-15mA$		-0.4	V
		$I_C=-500mA, I_B=-50mA$		-1.6	
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=-150mA, I_B=-15mA$		-1.3	V
		$I_C=-500mA, I_B=-50mA$		-2.6	
fT	Current Gain-Bandwidth Product	$I_C=-50mA, V_{CE}=-20V, f=100MHz$	200		MHZ

Switching Characteristic

Symbol	Parameter	Test Conditions	Min	Max	Units
td	Delay Time	$V_{CE}=-30V, I_C=-50mA, I_{B1}=-15mA$		10	ns
tr	Rise Time			40	ns
ts	Storage Time	$V_{CE}=-6.0V, I_C=-150mA, I_{B1}=-I_{B2}=-15mA$		80	ns
tf	Fall Time			30	ns

Typical Characteristics

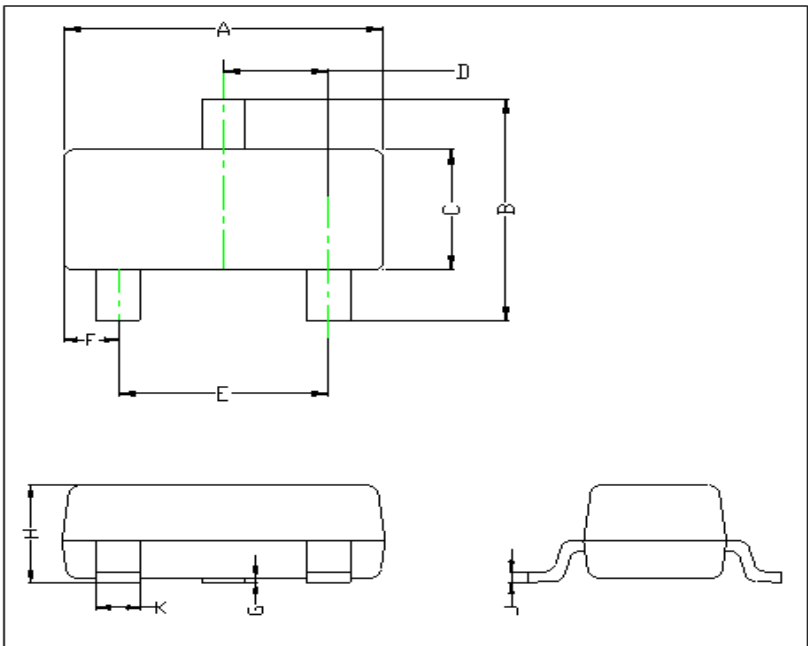


Ordering Information

Device	Package	Shipping	Tape wide	Emboss pitch	Tape specification	Notes
MMB2907A	SOT23	Tape & Reel 3000pcs /7" Reel	8mm	4mm	Conductive	

Package Dimensions

Package Outline : SOT23



Symbol	Dimensions in mm	
	Min.	Max.
A	2.800	3.040
B	2.100	2.640
C	1.200	1.400
D	0.890	1.030
E	1.780	2.050
F	0.450	0.600
G	0.013	0.100
H	0.900	1.110
J	0.090	0.180
K	0.370	0.510

SOT23 Package Outline

Note:
 1. Halogen free ,EMC
 2. Pb free solder
 3: Lead thickness solder plating
 4. Lead frame CAC-5
 5. Other Tolerance ± 0.05
 6. Dimensions are exclusive of Burrs Mold Flash and Tie Bar extrusions
 7. Unit : mm

NOTICE

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