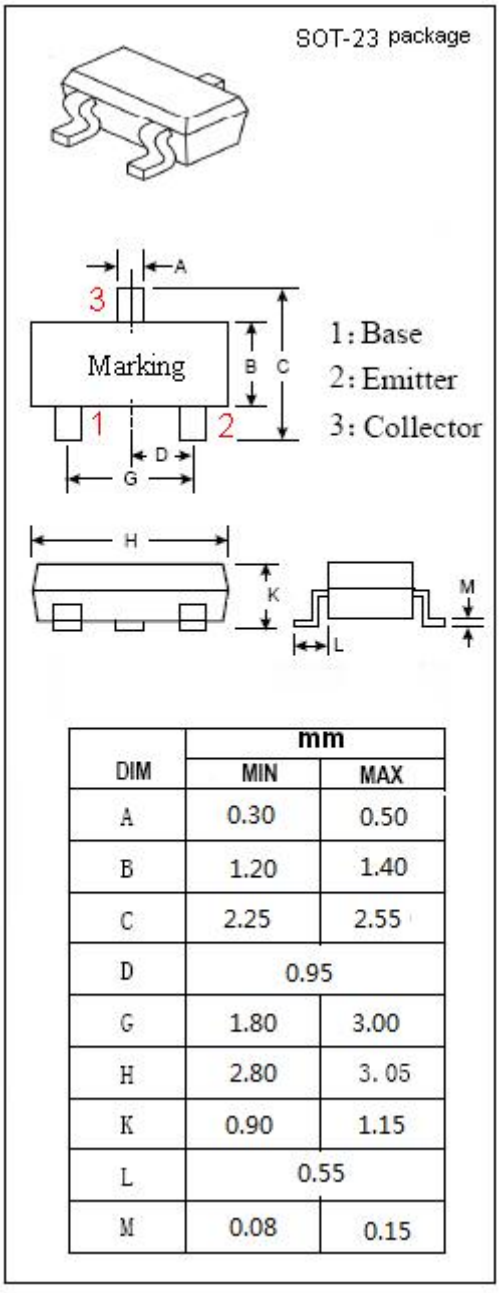
isc Silicon PNP Transistor PMBT3906

DESCRIPTION

- PNP switching transistor in a SOT23 plastic package
- NPN complement:PMBT3904
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for telephony and professional communication equipment



DIM	mm	
	MIN	MAX
A	0.30	0.50
B	1.20	1.40
C	2.25	2.55
D	0.95	
G	1.80	3.00
H	2.80	3. 05
K	0.90	1.15
L	0.55	
M	0.08	0.15

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-40	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-100	mA
I_{CM}	Peak Collector Current	-200	mA
P_C	Collector Power Dissipation @T_C= 75℃	0.25	W
T_J	Junction Temperature	-65~150	℃
T_{stg}	Storage Temperature Range	-65~150	℃

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
I_{EBO}	Emitter Cutoff Current	V_{EB}= -5V; I_C= 0			-100	nA
I_{CBO}	Collector Cutoff Current	V_{CB}= -40V; I_E= 0			-100	nA
h_{FE-1}	DC Current Gain	I_C= -10mA ; V_{CE}=-1 V	100		300	
h_{FE-2}	DC Current Gain	I_C= -50mA ; V_{CE}=-1 V	60			
h_{FE-3}	DC Current Gain	I_C= -100mA ; V_{CE}=-1 V	30			
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= -50mA; I_B= -5mA			-0.3	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= -50mA; I_B= -5mA			-0.95	V
f_T	Current-Gain—Bandwidth Product	I_C= -10mA ; V_{CE}= -20V; f= 100MHz	250			MHz

Switching times

td	Delay Time	I_C=-10mA ;I_{B1}=-1mA; $V_{BE(off)}$=0.5V; V_{CC}=- 3V			35	ns
tr	Rise Time				35	ns
t_{stg}	Storage Time	I_C= -10mA ;I_{B1}=-1mA; I_{B2}= 1mA V_{CC}= -3V			225	ns
t_f	Fall Time				75	ns

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