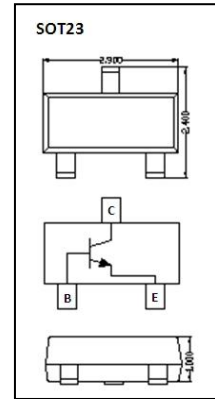


DATA SHEET

MMBT5551

- ◇ Capable of 300mWatts of Power Dissipation
- ◇ Operating and Storage Junction Temperatures: -55°C to 150°C
- ◇ Surface Mount SOT-23 Package
- ◇ RoHS compliant / Green EMC

Device Marking Code	
MMBT5551	G1



MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	180	V
V_{CEO}	Collector-Emitter Voltage	160	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current	600	mA
P_C	Collector Power Dissipation	300	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	416	°C/W
T_j	Junction Temperature	150	°C
T_{stg}	Storage Temperature	-55~+150	°C

ELECTRICAL CHARACTERISTICS @ 25° C Unless Otherwise Specified

Symbol	Parameter	Test Conditions	Min	Max	Units
V_{CEO}	Collector-emitter breakdown voltage	$I_C=1.0mA, I_B=0$	160		V
V_{CBO}	Collector-base breakdown voltage	$I_C=100\mu A, I_E=0$	180		V
V_{EBO}	Emitter-base breakdown voltage	$I_E=10\mu A, I_C=0$	6.0		V
I_{CBO}	Collector cutoff current	$V_{CB}=120V, I_E=0V$		50	nA
I_{EBO}	Emitter cut-off current	$V_{EB}=4V, I_C=0V$		50	nA

h_{FE}	DC current gain	$I_C=1mA, V_{CE}=5V$ $I_C=10mA, V_{CE}=5V$ $I_C=50mA, V_{CE}=5V$	80 100 50	300	
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C=10mA, I_B=1.0mA$ $I_C=50mA, I_B=5.0mA$		0.15 0.2	V
$V_{BE(sat)}$	Base-emitter saturation voltage	$I_C=10mA, I_B=1.0mA$ $I_C=50mA, I_B=5.0mA$		1.0 1.0	
f_T	Current gain-bandwidth Product	$I_C=10mA,$ $V_{CE}=10V, f=100MHz$	100	300	MHZ
C_{Ob}	Collector output capacitance	$V_{CB}=10V, I_E=0, f=1MHz$		6	pF

ORDERING INFORMATION

Device	Package	Shipping	Tape wide	Emboss pitch	Tape specification	Notes
MMBT5551	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

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