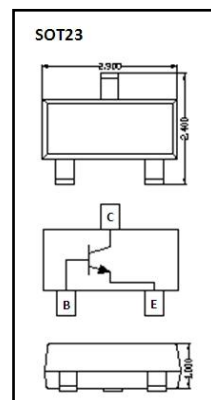


FMMT491

- ◇ Capable of 500mWatts of Power Dissipation
- ◇ Operating and Storage Junction Temperatures: -55°C to 150°C
- ◇ Surface Mount SOT-23 Package
- ◇ RoHS compliant / Green EMC
- ◇ Collector current: $I_C=1.0A$

Device Marking Code	
FMMT491	491



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

Symbol	Parameter	Value	Unit
V _{CB0}	Collector-Base Voltage	80	V
V _{CE0}	Collector-Emitter Voltage	60	V
V _{EB0}	Emitter-Base Voltage	5	V
I _C	Collector Current	1.0	A
P _C	Collector Power Dissipation	500	mW
R _{θJA}	Thermal Resistance From Junction To Ambient	500	°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 _{CE0}	Collector-emitter breakdown voltage	I _C =10mA, I _B =0	60		V
V _{CB0}	Collector-base breakdown voltage	I _C =100μA, I _E =0	80		V
V _{EB0}	Emitter-base breakdown voltage	I _E =100μA, I _C =0	5.0		V
I _{CB0}	Collector cutoff current	V _{CB} =60V, I _E =0V		100	nA

I_{EBO}	Emitter cut-off current	$V_{EB}=4V, I_C=0$		100	nA
h_{FE}	DC current gain	$h_{FE(1)} I_C=1.0mA, V_{CE}=5V$	100		
		$h_{FE(2)} I_C=500mA, V_{CE}=5V^*$	100	300	
		$h_{FE(3)} I_C=1.0A, V_{CE}=5V^*$	80		
		$h_{FE(4)} I_C=2.0A, V_{CE}=5V^*$	30		
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C=500mA, I_B=50mA$		0.25	V
		$I_C=1A, I_B=100mA$		0.5	
$V_{BE(sat)}$	Base-emitter saturation voltage	$I_C=1A, I_B=100mA$		1.1	V
f_T	Transition frequency	$I_C=50mA, V_{CE}=10V, f=100MHz$	150		MHZ
C_{ob}	Output Capacitance	$V_{CB}=10Vdc, f=1.0MHz$		10	pF

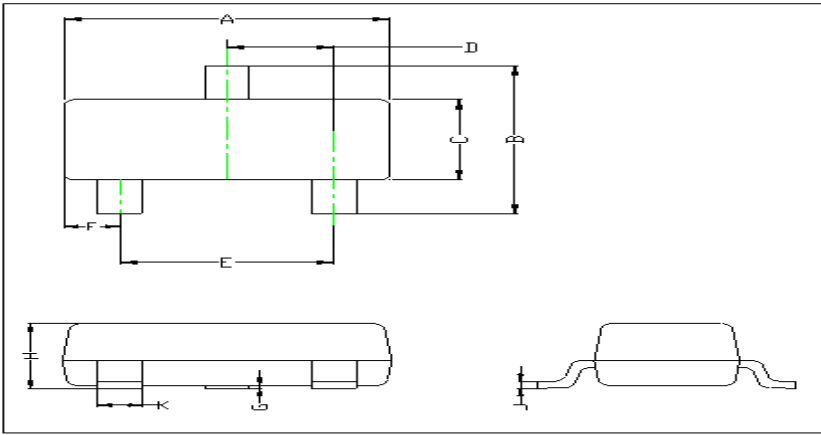
* Measured under pulsed conditions. Pulse width=300us. Duty cycle2%

ORDERING INFORMATION

Device	Package	Shipping	Tape wide	Emboss pitch	Tape specification	Notes
FMMT491	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

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

SOT23 Package Outline