



NPN Silicon Epitaxial Planar Transistor

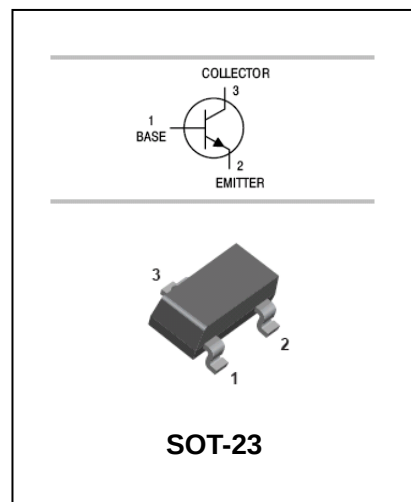
FMMT493

FEATURES

- Medium power transistor.
- Complementary To FMMT593.



Lead-free



ORDERING INFORMATION

Type No.	Marking	Package Code
FMMT493	493	SOT-23

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Units
V _{CBO}	Collector-Base Voltage	120	V
V _{CEO}	Collector-Emitter Voltage	100	V
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current -Continuous	1	A
I _{CM}	Peak Pulse Current	2	A
P _C	Collector Dissipation	500	mW
T _j , T _{stg}	Junction and Storage Temperature	-55 to +150	°C



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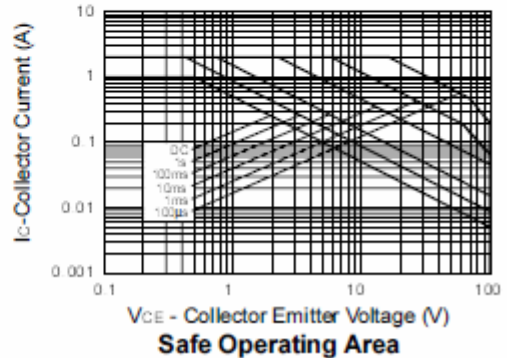
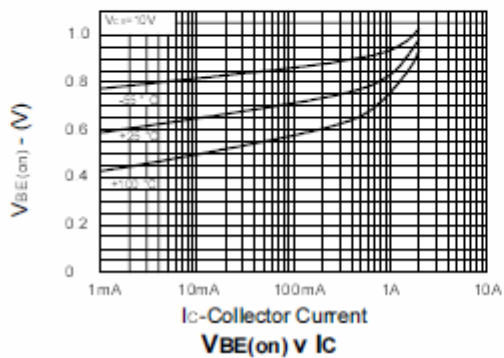
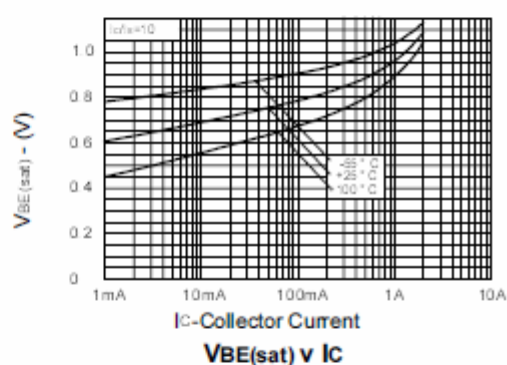
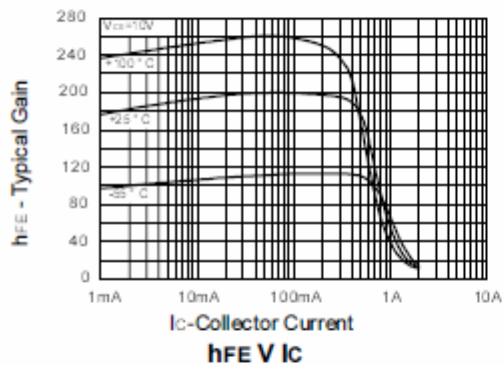
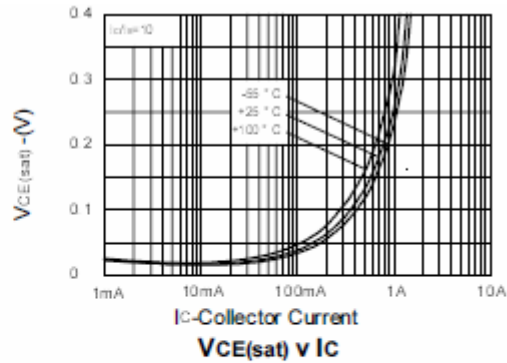
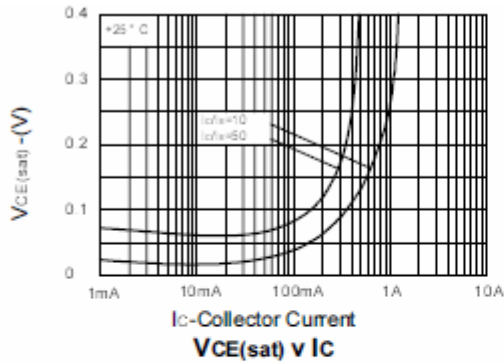
ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	120			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	100			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=100V, I_E=0$			0.1	μA
Collector cut-off current	I_{CES}	$V_{CES}=100V$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4V, I_C=0$			0.1	μA
DC current gain	h_{FE}	$V_{CE}=10V, I_C=1mA$	100			
		$V_{CE}=10V, I_C=250mA$	100		300	
		$V_{CE}=10V, I_C=500mA$	60			
		$V_{CE}=10V, I_C=1A$	20			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500mA, I_B=50mA$ $I_C=1A, I_B=100mA$			0.3 0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=1A, I_B=100mA$			1.15	V
Base-emitter voltage	$V_{BE(on)}$	$I_C=1A, V_{CE}=10V$			1.0	V
Transition frequency	f_T	$V_{CE}=10V, I_C=50mA$ $f=100MHz$	150			MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V, f=1MHz$			10	pF

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TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified



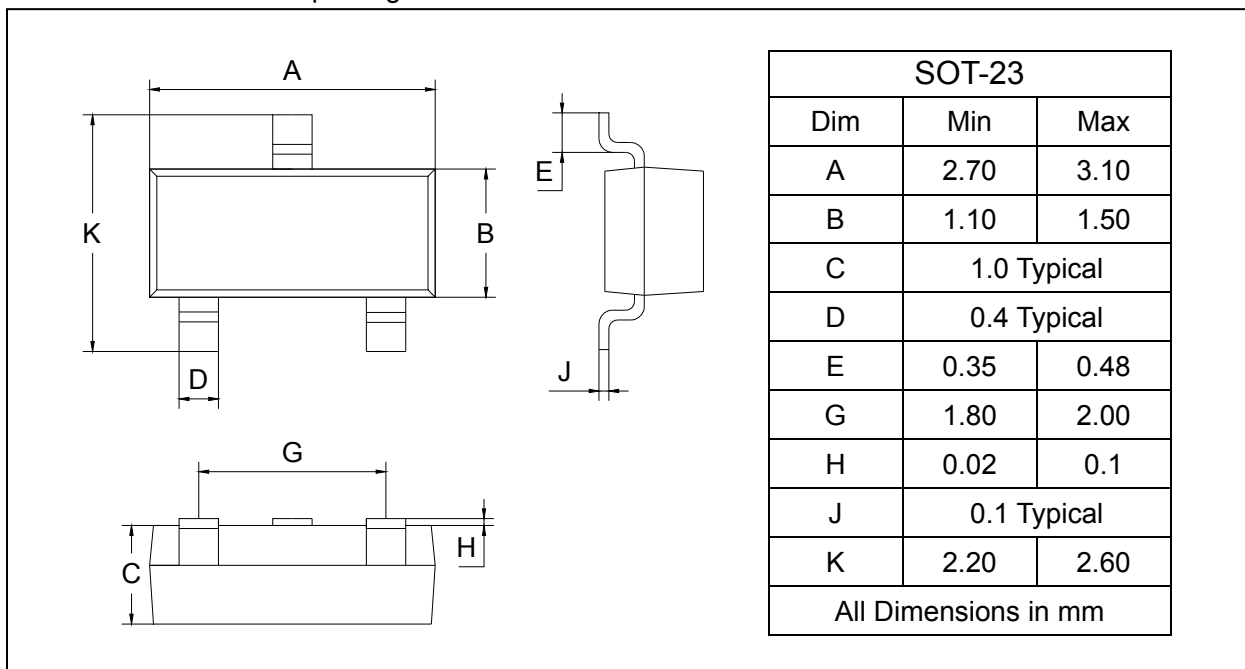
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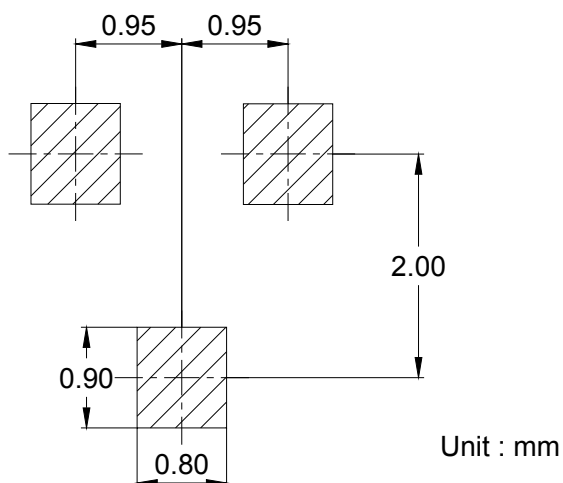
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
FMMT493	SOT-23	3000/Tape&Reel