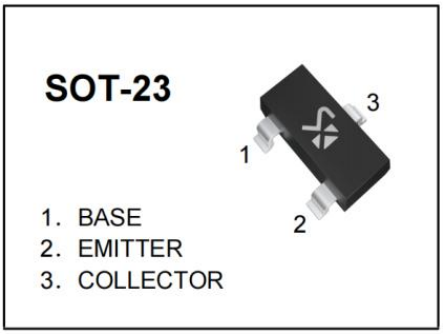
FMMT493

NPN Silicon Epitaxial Planar Transistor



Features

- Complimentary to FMMT593

Marking:493

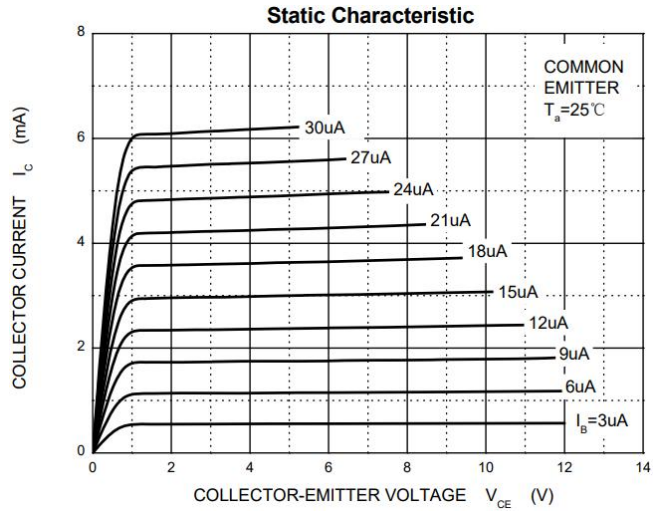
Maximum Ratings(T_A=25°C,unless otherwise noted.)

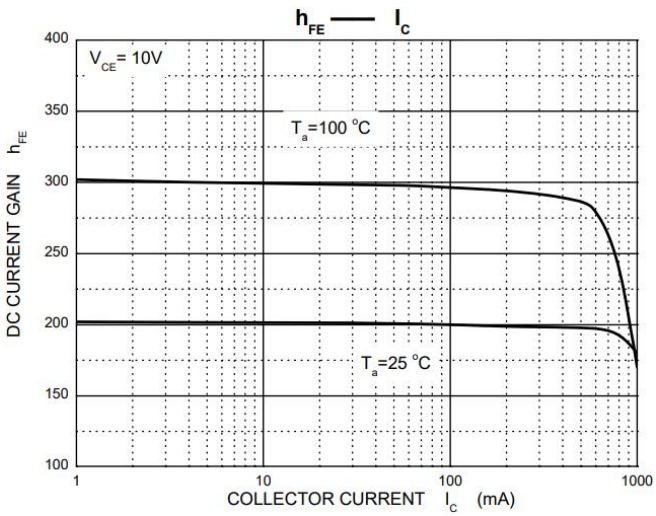
Parameter	Symbol	Limit	Unit
Collector-Base Voltage	V_{CBO}	120	V
Collector-Emitter Voltage	V_{CEO}	100	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current Continuous	I_C	1	A
Collector Power Dissipation	P_C	250	mW
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-55~+150	°C

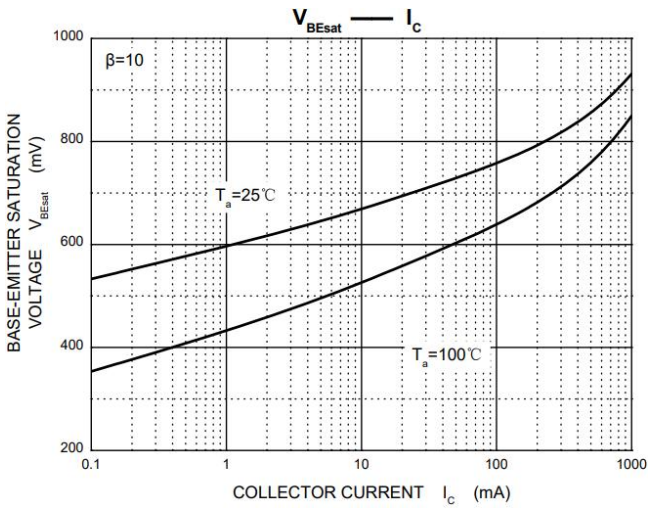
Electrical Characteristics(T_A=25°C,unless otherwise noted.)

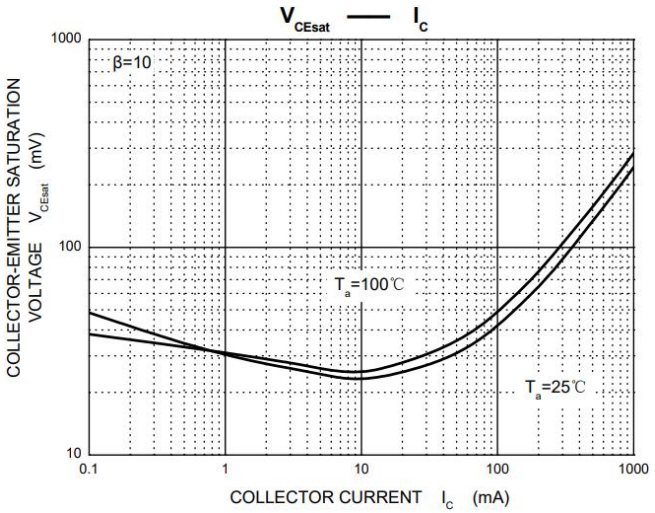
Parameter	Symbol	Condition	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA,I_E=0	120			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=10mA,I_B=0	100			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA,I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=100V,I_E=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=4V,I_C=0			0.1	μA
DC current gain	hFE	V_{CE}=10V,I_C=1mA	100			
		V_{CE}=10V,I_C=250mA	100		300	
		V_{CE}=10V,I_C=0.5A	60			
		V_{CE}=10V,I_C=1A	20			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=500mA,I_B=50mA			0.3	V
		I_C=1A,I_B=100mA			0.6	
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=1A,I_B=100mA			1.15	V
Base-emitter voltage	$V_{BE(on)}$	V_{CE}=10V,I_C=1A			1	V
Transition frequency	f_T	V_{CE}=10V,I_C=50mA	150			MHz
Output Capacitance	C_{ob}	V_{CB}=10V,I_E=0,f=1MHz			10	pF

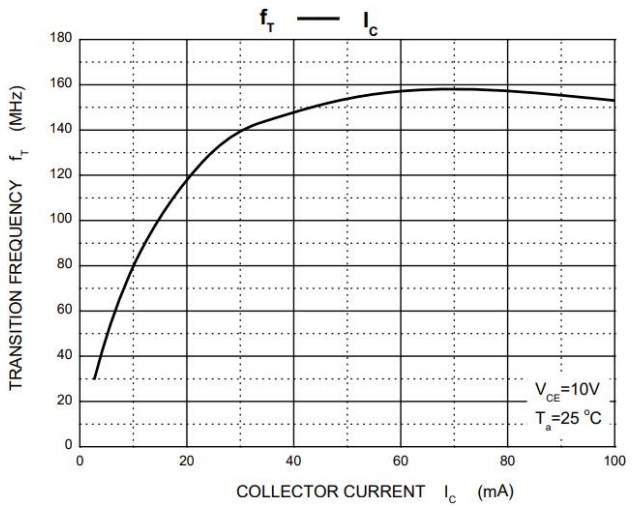
Typical Characteristic

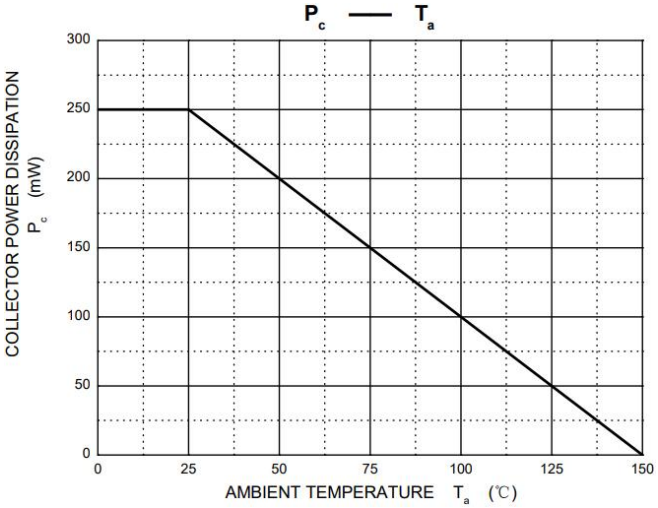








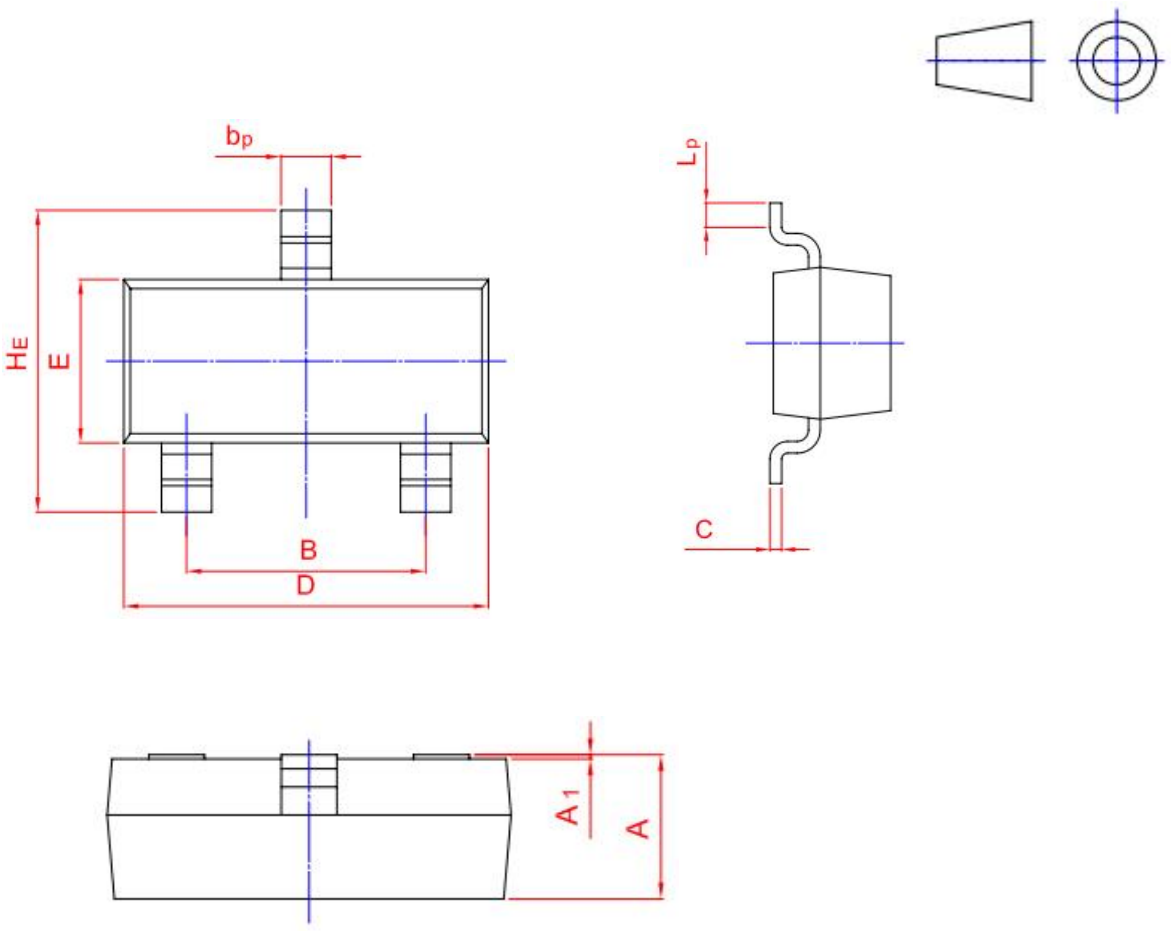




Package Information

SOT-23

Dimensions in mm



UNIT	A	B	b_p	C	D	E	H_E	A_1	L_P
Mm	1.40 0.95	2.04 1.78	0.50 0.35	0.19 0.08	3.10 2.70	1.65 1.20	2.64 2.20	0.100 0.013	0.50 0.20

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