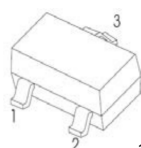
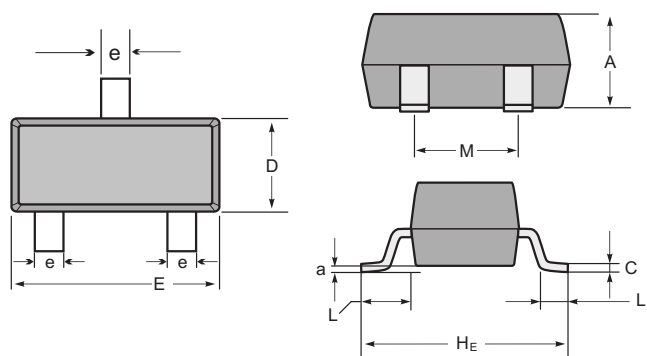


Features

- For Switching and AF Amplifier Applications.



1.BASE
2.EMITTER
3.COLLECTOR



SOT-23 mechanical data

UNIT		A	C	D	E	HE	e	M	L	L ₁	a
mm	max	1.1	0.15	1.4	3.0	2.6	0.5	1.95	0.55 (ref)	0.36 (ref)	0.0
	min	0.9	0.08	1.2	2.8	2.2	0.3	1.7			0.15
mil	max	43	6	55	118	102	20	77	22 (ref)	14 (ref)	0.0
	min	35	3	47	110	87	12	67			6

Absolute Maximum Ratings

Ratings at 25°C ambient temperature unless otherwise specified.

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

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Electrical Characteristics (T_A=25°C)

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain ^{Note1} at V _{CE} = 10 V, I _C = 1 mA at V _{CE} = 10 V, I _C = 250 mA at V _{CE} = 10 V, I _C = 500 mA at V _{CE} = 10 V, I _C = 1 A	H _{FE}	100 100 60 20	-- 300 -- --	--
Collector Base Cutoff Current at V _{CB} = 100V	I _{CBO}	--	100	nA
Emitter Base Cutoff Current at V _{EB} = 4 V	I _{EBO}	--	100	nA
Collector Base Breakdown Voltage at I _C = 100 μA	V _{(BR)CBO}	120	--	V
Collector Emitter Breakdown Voltage at I _C = 1 mA	V _{(BR)CEO}	100	--	V
Emitter Base Breakdown Voltage at I _E = 100 μA	V _{(BR)EBO}	5	--	V
Collector Emitter Saturation Voltage at I _C = 500 mA, I _B = 50 mA at I _C = 1 A, I _B = 100 mA	V _{CE(sat)}	-- --	300 600	mV
Base Emitter Saturation Voltage at I _C = 1 A, I _B = 100 mA	V _{BE(sat)}	--	1.15	V
Base Emitter On Voltage at V _{CE} = 10 V, I _C = 1 A	V _{BE(on)}	--	1	V
Transition Frequency at V _{CE} = 10 V, I _C = 50 mA, f = 100 MHz	F _T	150	--	MHz
Output Capacitance at V _{CB} = 10 V, f = 1 MHz	C _{ob}	--	10	pF

RATING AND CHARACTERISTIC CURVES (FMMT493)

