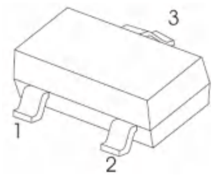
FMMT458 High Voltage Transistor



SOT-23

Features

400 Volt V_{CEO}

Marking 458

Absolute Maximum Ratings Ta = 25℃

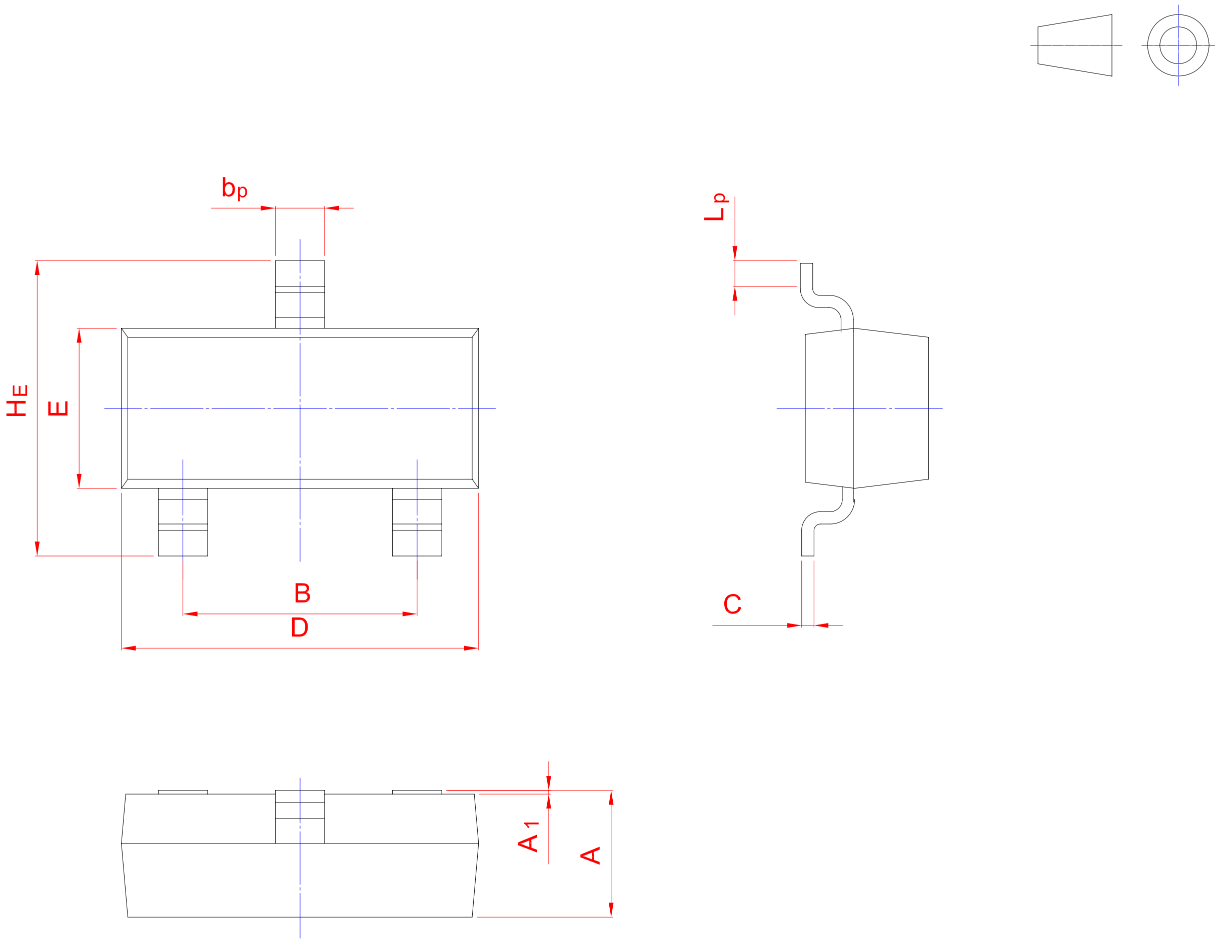
Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	400	V
Collector-emitter voltage	V_{CEO}	400	V
Emitter-base voltage	V_{EBO}	5	V
Peak collector current	I_{CM}	1	A
Collector current	I_C	225	mA
Base current	I_B	200	mA
Power dissipation	P_{tot}	500	mW
Operating and storage temperature range	T_j,T_{stg}	-55 to +150	℃

Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100ì A	400			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=10mA	400			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100ì A	5			V
Collector cutoff current	I_{CBO}	V_{CB}=320V			100	nA
Collector Cut-Off Current	I_{CES}	V_{CE}=320V			100	nA
Emitter cut-off current	I_{EBO}	V_{EB}=4V			100	nA
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=20mA,I_B=2mA			0.2	V
		I_C=50mA,I_B=6mA			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=50mA,I_B=5mA			0.9	V
Base-emitter turn on voltage	$V_{BE(on)}$	I_C=50mA,V_{CE}=10V			0.9	V
Static Forward Current Transfer Ratio	h_{FE}	I_C=1mA, V_{CE}=10V	100			
		I_C=50mA, V_{CE}=10V*	100		300	
		I_C=100mA, V_{CE}=10V*	15			
Transition frequency	f_T	I_C=10mA,V_{CE}=20V,f=20MHz	50			MHz
Output capacitance	C_{obo}	V_{CB}=20V, f=1MHz			5	pF
Switching times	ton	I_C=50mA, V_{CC}=100V		135		ns
	toff	I_{B1}=5mA, I_{B2}=-10mA		2260		ns

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads **SOT-23**



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	3.00 2.20	0.100 0.013	0.50 0.20