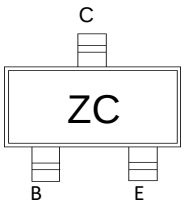
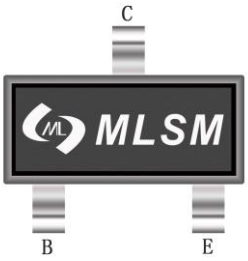
Features

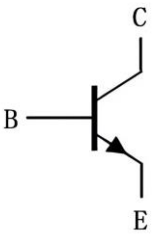
- Switching Application



Marking and pin assignment



SOT-23 top view



Schematic diagram

Pb-Free RoHS Halogen-Free

Maximum Ratings (Ta=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	25	V
V_{EBO}	Emitter-Base Voltage	5	V
Ic	Collector Current	200	mA
P_c	Collector Power Dissipation	330	mW
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	378	℃/W
T_J , T_{STG}	Operating and Storage Temperature Range	-55～+150	℃

ELECTRICAL CHARACTERISTICS(Ta=25℃ unless otherwise specified)

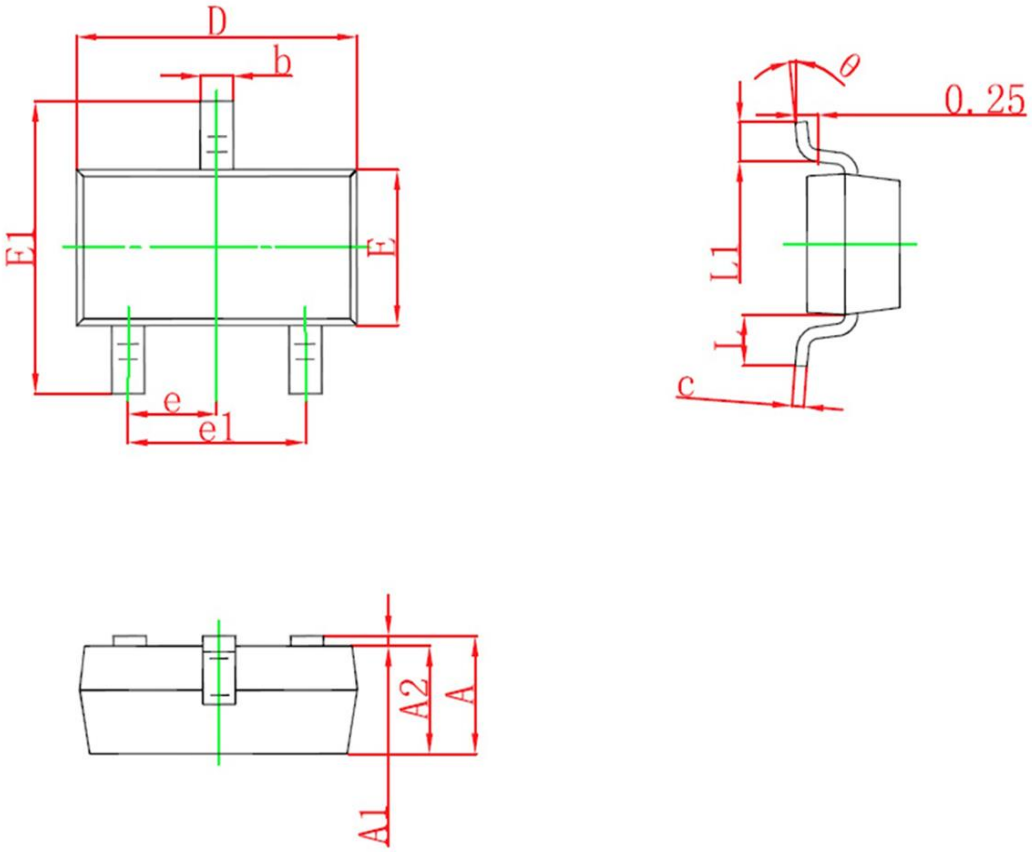
Symbol	Parameter	Test conditions	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C=10μA,I_E=0	30	--	--	V
$V_{(BR)CEO*}$	Collector-emitter breakdown voltage	I_C=1mA,I_B=0	25	--	--	V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E=10μA,I_C=0	5	--	--	V
I_{CBO}	Collector cut-off current	V_{CB}=20V,I_E=0	--	--	50	nA
I_{EBO}	Emitter cut-off current	V_{EB}= 3V,I_C=0	--	--	50	nA
h_{FE1} *	DC current gain	V_{CE}=1V,I_C=2mA	120	--	360	
h_{FE2} *		V_{CE}=1V,I_C=50mA	60	--	--	
$V_{CE(sat)*}$	Collector-emitter saturation voltage	I_C= 50mA I_B= 5mA	--	--	0.3	V
$V_{BE(sat)*}$	Base -emitter saturation voltage	I_C= 50mA I_B= 5 mA	--	--	0.95	V
C_{ob}	Collector output capacitance	V_{CB}=5V,I_E=0,f=140KHz	--	--	4	pF
f_T	Transition frequency	V_{CE}=20 V, I_c=10mA,f =100MHz	300	--	--	MHz
C_{Ib}	Emitter input capacitance	V_{BE}=0.5V, I_E=0, f=140KHz			8	pF

*Pulse test

Ordering Information (Example)

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
FMMT4124	SOT-23	ZC	3,000	45,000	180,000	7"reel

SOT-23 Package information



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E1	2.250	2.550	0.088	0.100
E	1.200	1.400	0.047	0.055
e	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°