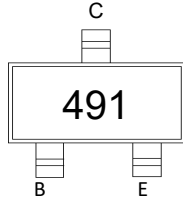
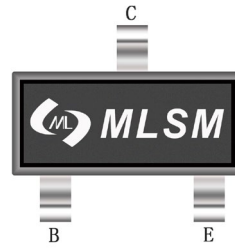


**Features**

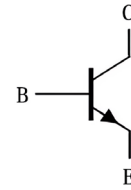
- Low equivalent on-resistance



Marking and pin assignment



SOT-23 top view



Schematic diagram



Pb-Free



RoHS



Halogen-Free

**Maximum Ratings (T<sub>a</sub>=25°C unless otherwise noted)**

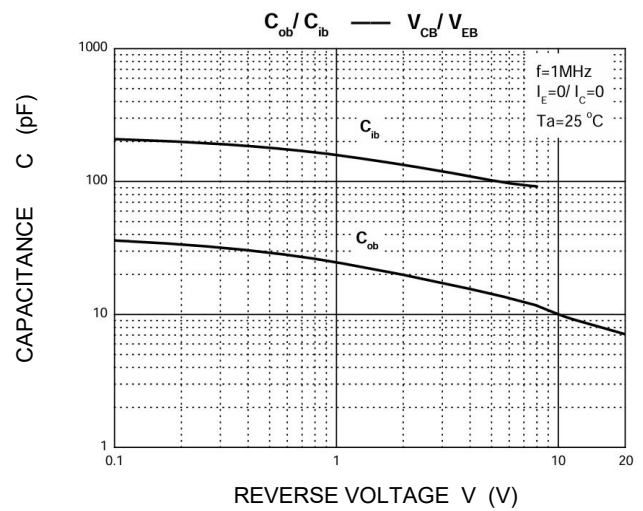
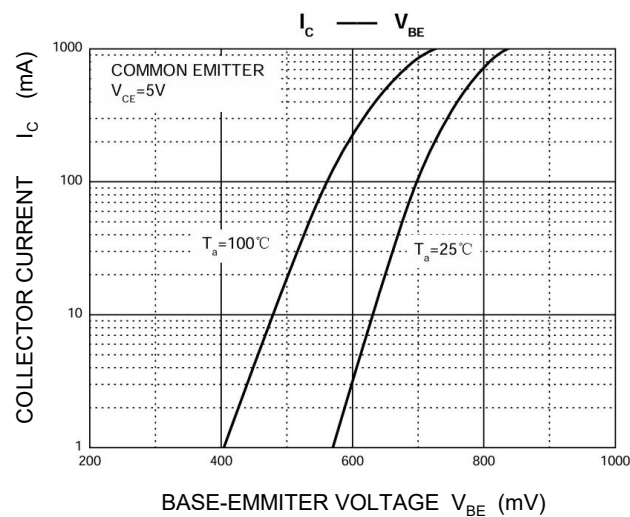
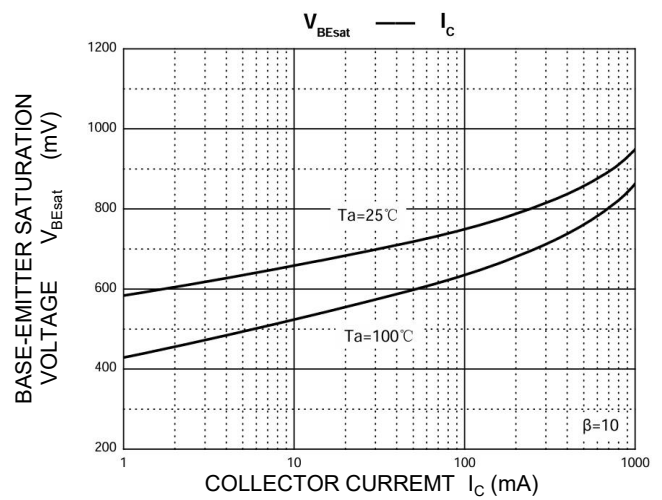
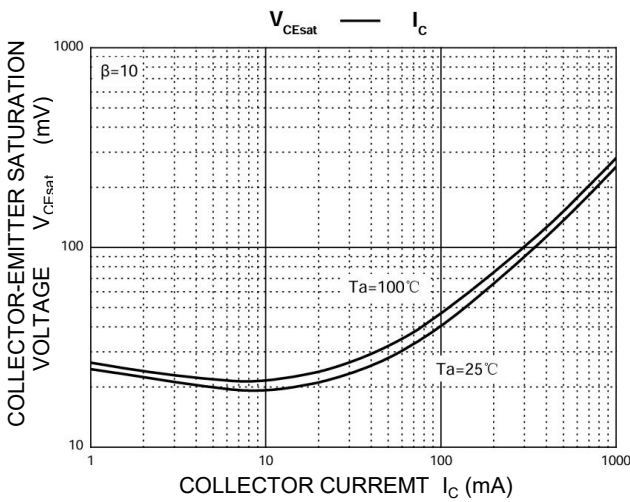
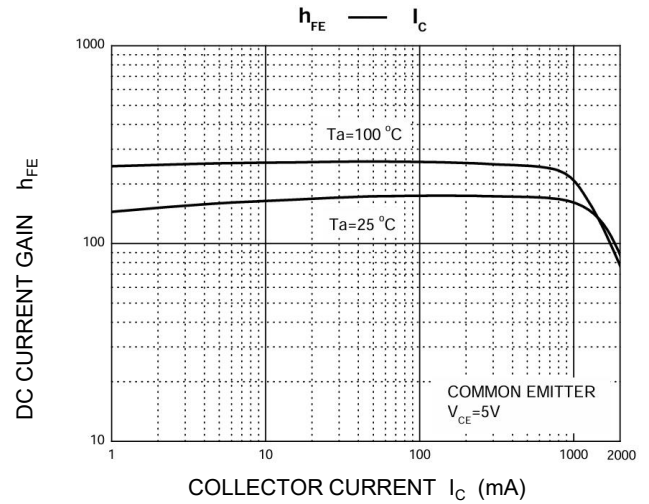
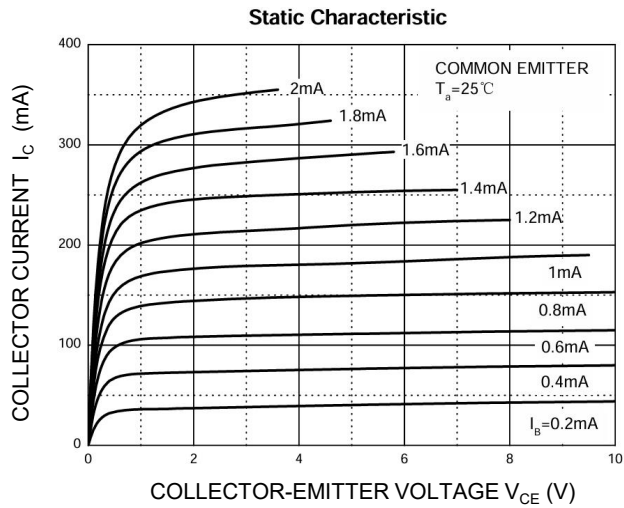
Symbol	Parameter	Value	Unit
V <sub>CB0</sub>	Collector-Base Voltage	80	V
V <sub>CEO</sub>	Collector-Emitter Voltage	60	V
V <sub>EBO</sub>	Emitter-Base Voltage	5	V
I <sub>C</sub>	Collector Current	1	A
I <sub>CM</sub>	Peak Pulse Current	2	A
P <sub>C</sub>	Collector Power Dissipation	250	mW
R <sub>θJA</sub>	Thermal Resistance Junction to Ambient	500	°C/W
T <sub>J</sub> , T <sub>STG</sub>	Operating and Storage Temperature Range	-55~+150	°C

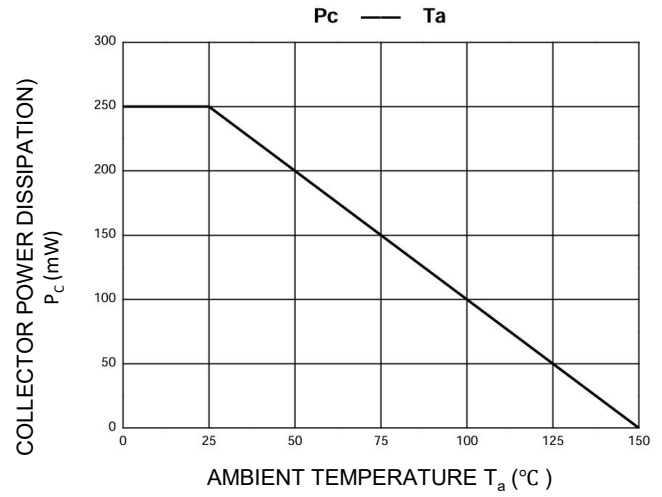
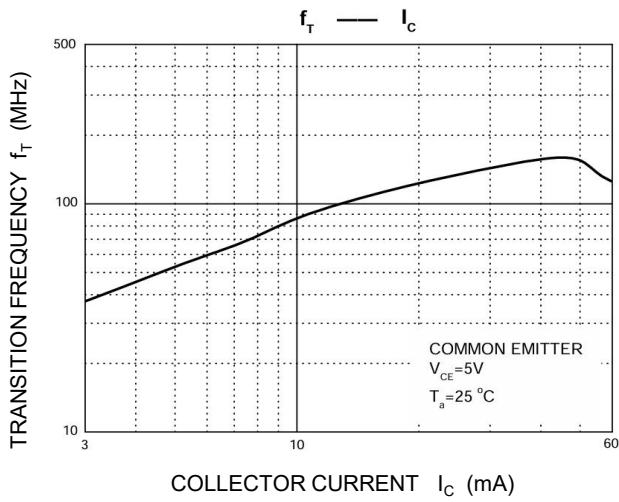
**ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise specified)**

Symbol	Parameter	Test conditions	Min	Typ	Max	Unit
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =100μA, I <sub>E</sub> =0	80	--	--	V
V <sub>(BR)CEO</sub> <sup>1</sup>	Collector-emitter breakdown voltage	I <sub>C</sub> =10mA, I <sub>B</sub> =0	60	--	--	V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =100μA, I <sub>C</sub> =0	5	--	--	V
I <sub>CB0</sub>	Collector cut-off current	V <sub>CB</sub> =60V, I <sub>E</sub> =0	--	--	0.1	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =4V, I <sub>C</sub> =0	--	--	0.1	μA
h <sub>FE1</sub>	DC current gain	V <sub>CE</sub> =5V, I <sub>C</sub> =1mA	100	--	--	
h <sub>FE2</sub> <sup>1</sup>		V <sub>CE</sub> =5V, I <sub>C</sub> =500mA	100	--	300	
h <sub>FE3</sub> <sup>1</sup>		V <sub>CE</sub> =5V, I <sub>C</sub> =1A	80	--	--	
h <sub>FE4</sub> <sup>1</sup>		V <sub>CE</sub> =5V, I <sub>C</sub> =2A	30	--	--	
V <sub>CE(sat)1</sub> <sup>1</sup>	Collector-emitter saturation voltage	I <sub>C</sub> =500mA, I <sub>B</sub> =50mA	--	--	0.25	V
V <sub>CE(sat)2</sub> <sup>1</sup>		I <sub>C</sub> =1A, I <sub>B</sub> =100mA	--	--	0.5	V
V <sub>BE(sat)1</sub> <sup>1</sup>	Base-emitter saturation voltage	I <sub>C</sub> =1A, I <sub>B</sub> =100mA	--	--	1.1	V
V <sub>BE</sub> <sup>1</sup>	Base-emitter saturation voltage	V <sub>CE</sub> =5V, I <sub>C</sub> =1A	--	--	1	V
f <sub>T</sub>	Transition frequency	V <sub>CE</sub> =10V, I <sub>C</sub> =50mA, f=100MHz	150	--	--	MHz
C <sub>ob</sub>	Collector output capacitance	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz	--	--	10	pF

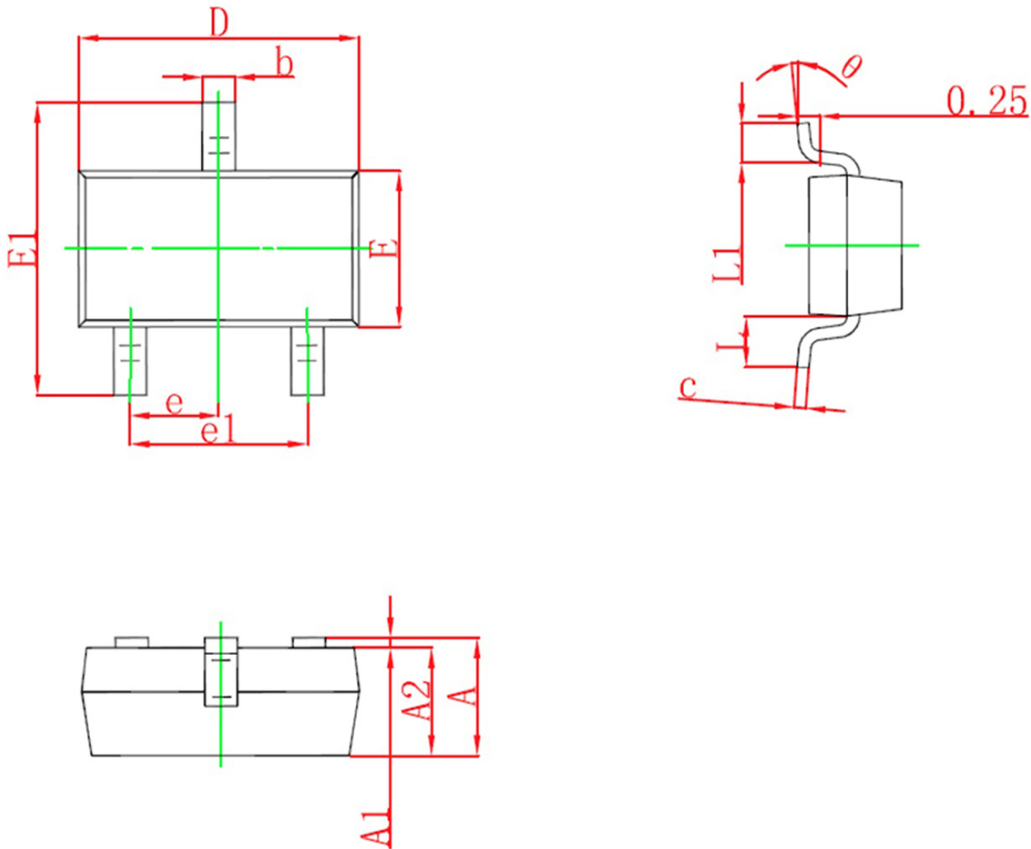
<sup>1</sup>Measured under pulsed conditions, Pulse width=300μs, Duty cycle≤2%.

Typical Operating Characteristics




**Ordering Information (Example)**

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
FMMT491	SOT-23	491	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°