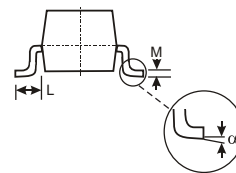
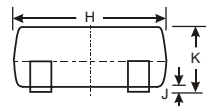
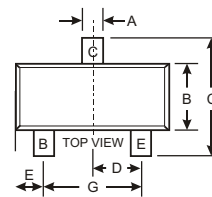


Features

- $BV_{CEO} > -60V$.
- $I_C = -1A$ High Continuous Collector Current.
- NPN Complement: FMMT491
- Marking Code: 591



SOT-23		
Dim	Min	Max
A	0.37	0.51
B	1.20	1.40
C	2.30	2.50
D	0.89	1.03
E	0.45	0.60
G	1.78	2.05
H	2.80	3.00
J	0.013	0.10
K	0.903	1.10
L	0.45	0.61
M	0.085	0.180
α	0°	8°
All Dimensions in mm		

Maximum Ratings @ $T_A = 25^\circ C$ unless otherwise specified

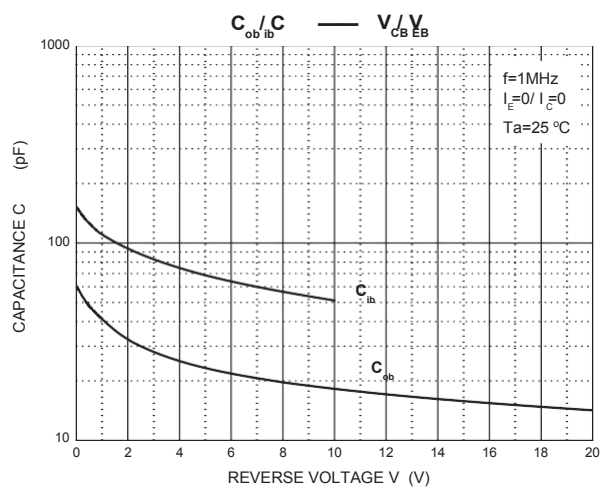
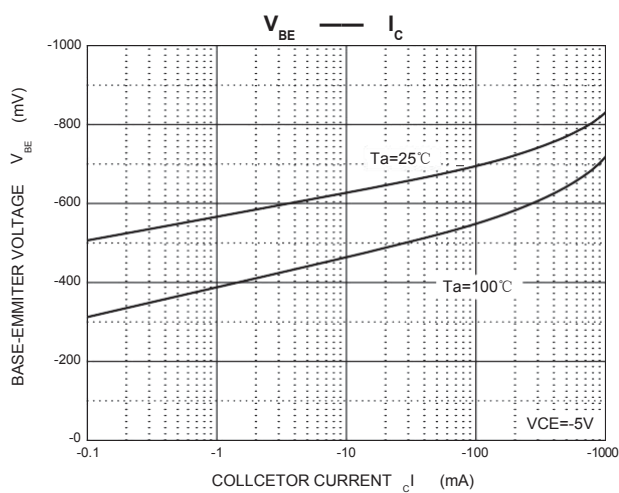
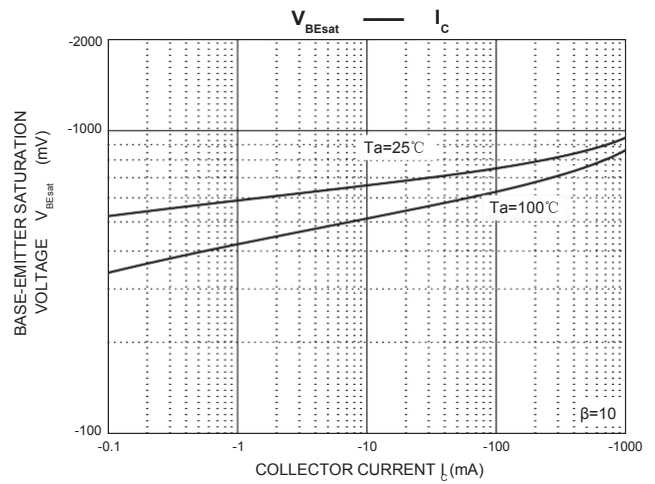
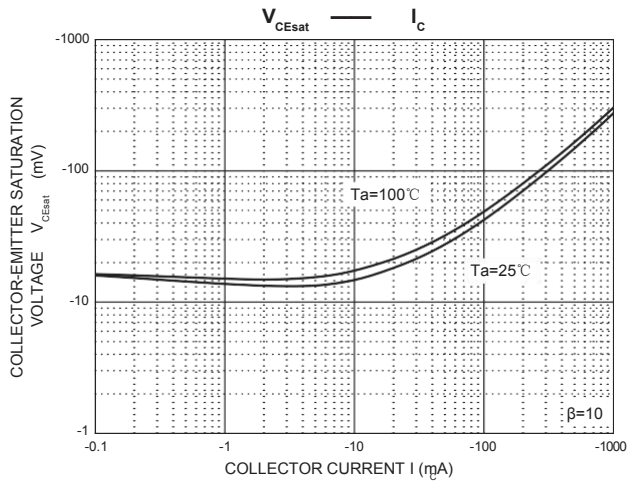
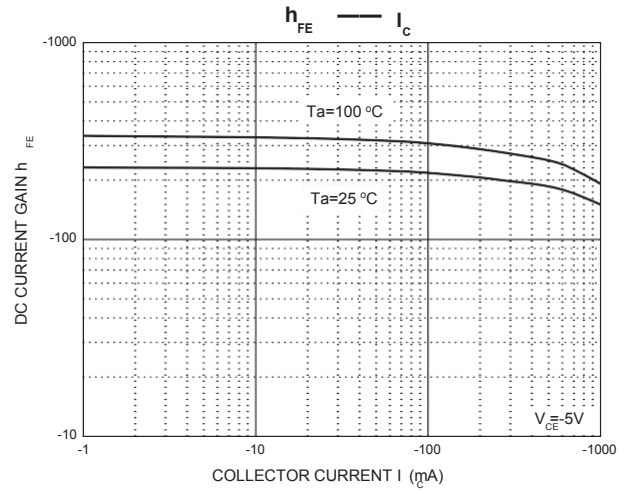
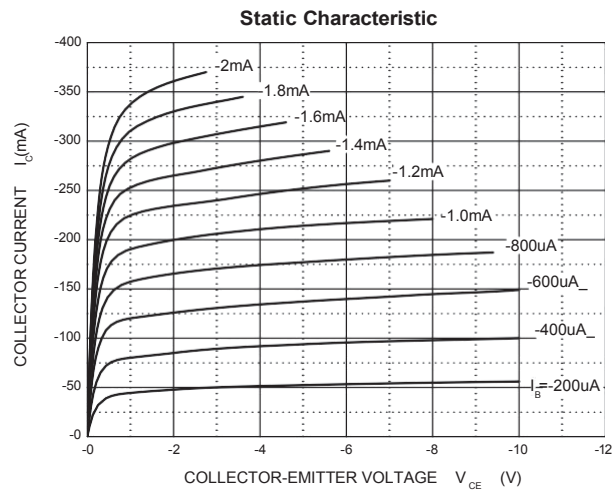
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-80	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-1	A
I_{CM}	Peak Pulse Current	-2	A
P_C	Collector Power Dissipation	250	mW
T_J	Junction Temperature	150	°C
T_{stg}	Storage Temperature	-55~+150	°C

Electrical Characteristics @ $T_A = 25^\circ C$ unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu A, I_E = 0$	-80			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}^1$	$I_C = -10mA, I_B = 0$	-60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu A, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -60V, I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5.6V, I_C = 0$			-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = -5V, I_C = -1mA$	100			
	$h_{FE(2)}^1$	$V_{CE} = -5V, I_C = -500mA$	100		300	
	$h_{FE(3)}^1$	$V_{CE} = -5V, I_C = -1A$	80			
	$h_{FE(4)}^1$	$V_{CE} = -5V, I_C = -2A$	15			
Collector-emitter saturation voltage	$V_{CE(sat)1}^1$	$I_C = -500mA, I_B = -50mA$			-0.3	V
	$V_{CE(sat)2}^1$	$I_C = -1A, I_B = -100mA$			-0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}^1$	$I_C = -1A, I_B = -100mA$			-1.2	V
Base-emitter voltage	V_{BE}^1	$V_{CE} = -5V, I_C = -1A$			-1	V
Transition frequency	f_T	$V_{CE} = -10V, I_C = -50mA, f = 100MHz$	150			MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10V, f = 1MHz$			10	pF

¹Measured under pulsed conditions, Pulse width=300 μs , Duty cycle $\leq 2\%$.

TYPICAL TRANSIENT CHARACTERISTICS



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