

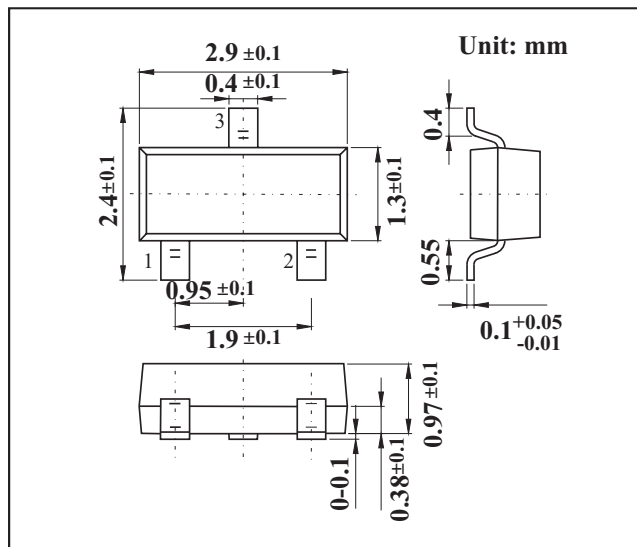
SOT-23 Plastic-Encapsulate Transistors

Features

- Low equivalent on-resistance.
- Medium Power Transistor

MECHANICAL DATA

- Case style: SOT-23 molded plastic
- Mounting position: any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-80	V
Collector-emitter voltage	V_{CEO}	-60	V
Emitter-base voltage	V_{EBO}	-5	V
Peak collector current	I_{CM}	-2	A
Collector current	I_C	-1	A
Base current	I_B	-200	mA
Power dissipation	P_{tot}	500	mW
Operating and storage temperature range	T_j, T_{stg}	-55 to +150	°C

PACKAGE INFORMATION

Device	Package	Shipping
FMMT591	SOT-23	3000/Tape&Reel

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu A$	-80			V
Collector-emitter breakdown voltage *	$V_{(BR)CEO}$	$I_C = -10mA$	-60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu A$	-5			V
Collector cutoff current	I_{CBO}	$V_{CB} = -60V$			-100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = -4V$			-100	nA
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C = -1A, I_B = -100mA$			-0.6	V
Base-emitter saturation voltage *	$V_{BE(sat)}$	$I_C = -1A, I_B = -100mA$			-1.2	V
Base-emitter voltage *	$V_{BE(ON)}$	$I_C = -1A, V_{CE} = -5V$			-1.0	V
Static Forward Current Transfer Ratio	h_{FE}	$I_C = -1mA, V_{CE} = -2V^*$	100			
		$I_C = -500mA, V_{CE} = -5V$	100		300	
		$I_C = -1A, V_{CE} = -2V^*$	80			
		$I_C = -2A, V_{CE} = -2V^*$	40			
Current-gain-bandwidth product	f_T	$I_C = -50mA, V_{CE} = -10V, f = 100MHz$	150			MHz
Output capacitance	C_{obo}	$V_{CB} = -10V, f = 1MHz$			10	pF

* Pulse test: $t_p \leq 300\mu s$; $d \leq 0.02$.

Marking

Marking	591
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RATINGS AND CHARACTERISTIC CURVES

