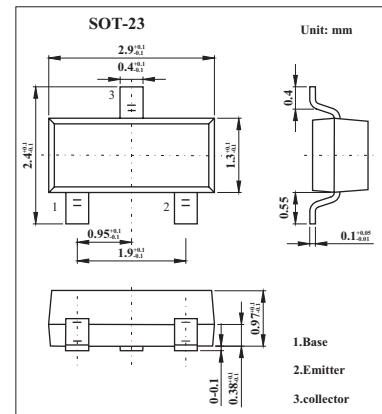


High Voltage Transistor

FMMT593

■ Features

- SOT23 PNP silicon planar

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	-120	V
Collector-emitter voltage	V_{CE0}	-100	V
Emitter-base voltage	V_{EB0}	-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	$^\circ\text{C}$

FMMT593

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu A$	-120			V
Collector-emitter breakdown voltage *	$V_{(BR)CEO}$	$I_C = -10mA$	-100			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu A$	-5			V
Collector cutoff current	I_{CBO}	$V_{CB} = -100V$			-100	nA
Collector-Emitter Cut-Off Current	I_{CES}	$V_{CE} = -100V$			-100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = -4V$			-100	nA
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C = -250mA, I_B = -25mA$			-0.2	V
		$I_C = -500mA, I_B = -50mA$			-0.3	V
Base-emitter saturation voltage *	$V_{BE(sat)}$	$I_C = -500mA, I_B = -50mA$			-1.1	V
Base-emitter voltage *	$V_{BE(ON)}$	$I_C = -1mA, V_{CE} = -5V$			-1.0	V
Static Forward Current Transfer Ratio	h_{FE}	$I_C = -1mA, V_{CE} = -5V$	100			
		$I_C = -250mA, V_{CE} = -5V^*$	100			
		$I_C = -500mA, V_{CE} = -5V^*$	100		300	
		$I_C = -1A, V_{CE} = -5V,$	50			
Current-gain-bandwidth product	f_T	$I_C = -50mA, V_{CE} = -10V, f = 100MHz$	50			MHz
Output capacitance	C_{obo}	$V_{CB} = -10V, f = 1MHz$			5	pF

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

■ Marking

Marking	593
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