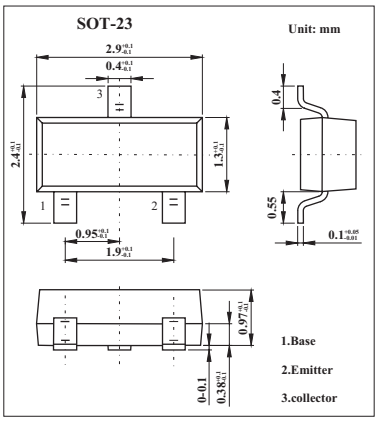
Power High Performance Transistor

FMMT589



■ Features

● Low equivalent on-resistance.

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-50	V
Collector-emitter voltage	V_{CEO}	-30	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	℃

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-100μA	-50			V
Collector-emitter breakdown voltage *	$V_{(BR)CEO}$	I_C=-10mA	-30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-100μA	-5			V
Collector cutoff current	I_{CBO}	V_{CB}=-30V			-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			-0.35	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}=-2V			-1.1	V
Static Forward Current TransferRatio	h_{FE}	I_C=-1mA, V_{CE}=-2V*	100			
		I_C=-500mA,V_{CE}=-2V*	100		300	
		I_C=-1A, V_{CE}=-2V*	80			
		I_C=-2A, V_{CE}=-2V*	40			
Current-gain-bandwidth product	f_T	I_C=-100mA,V_{CE}=-5V,f=100MHz	100			MHz
Output capacitance	C_{obo}	V_{CB}=-10V,f=1MHz			15	pF

* Pulse test: tp ⩽ 300 μs; d ⩽ 0.02.

■ Marking

Marking	589