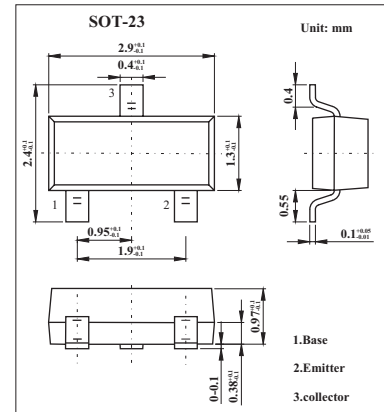


Avalanche Transistor

FMMT415

■ Features

- High speed pulse generators
- SOT23 NPN Silicon Planar



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	260	V
Collector-emitter voltage	V_{CE0}	100	V
Emitter-base voltage	V_{EB0}	6	V
Peak collector current	I_{CM}	60	A
Collector current	I_C	500	mA
Power dissipation	P_{tot}	330	mW
Operating and storage temperature range	T_j, T_{stg}	-55 to +150	°C

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=1mA, T_{amb}= -55 \text{ to } +150^\circ\text{C}$	260			V
Collector-emitter breakdown voltage *	$V_{(BR)CEO}$	$I_C=100\mu A$	100			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A$	6			V
Collector cutoff current	I_{CBO}	$V_{CB}=80V$			0.1	μA
		$V_{CB}=80V, T_{amb}=100^\circ\text{C}$			10	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4V$			0.1	μA
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C=10mA, I_B=1mA$			0.5	V
Base-emitter saturation voltage *	$V_{BE(sat)}$	$I_C=10mA, I_B=1mA$			0.9	V
Current in second breakdown	I_{SB}	$V_C=200V, C_{CE}=620pF$	15			A
		$V_C=250V, C_{CE}=620pF$	25			A
DC current gain *	h_{FE}	$I_C=10mA, V_{CE}=10V$	25			
Transition frequency	f_T	$I_C=10mA, V_{CE}=20V, f=20MHz$	40			MHz
Collector-base capacitance	C_{cb}	$V_{CB}=20V, I_E=0, f=1MHz$			8	pF

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

■ Marking

Marking	415
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