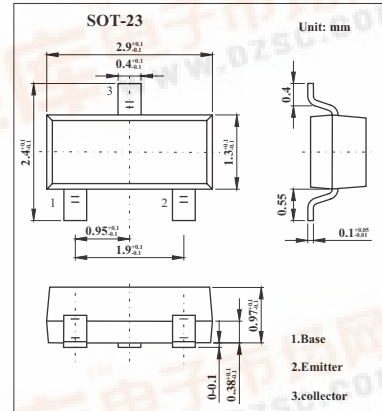


SMD Type Transistors

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 <sub>CB0</sub>	260	V
Collector-emitter voltage	V <sub>CE0</sub>	100	V
Emitter-base voltage	V <sub>EB0</sub>	6	V
Peak collector current	I <sub>CM</sub>	60	A
Collector current	I <sub>C</sub>	500	mA
Power dissipation	P <sub>tot</sub>	330	mW
Operating and storage temperature range	T <sub>j</sub> , T <sub>stg</sub>	-55 to +150	°C

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> =1mA, T <sub>amb</sub> = -55 to +150°C	260			V
Collector-emitter breakdown voltage *	V <sub>(BR)CEO</sub>	I <sub>C</sub> =100μA	100			V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =10μA	6			V
Collector cutoff current	I <sub>CBO</sub>	V <sub>CB</sub> =80V			0.1	μA
		V <sub>CB</sub> =80V, T <sub>amb</sub> =100°C			10	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =4V			0.1	μA
Collector-emitter saturation voltage *	V <sub>CE(sat)</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =1mA			0.5	V
Base-emitter saturation voltage *	V <sub>BE(sat)</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =1mA			0.9	V
Current in second breakdown	I <sub>SB</sub>	V <sub>C</sub> =200V, C <sub>CE</sub> =620pF	15			A
		V <sub>C</sub> =250V, C <sub>CE</sub> =620pF	25			A
DC current gain *	h <sub>FE</sub>	I <sub>C</sub> =10mA, V <sub>CE</sub> =10V	25			
Transition frequency	f <sub>T</sub>	I <sub>C</sub> =10mA, V <sub>CE</sub> =20V, f=20MHz	40			MHz
Collector-base capacitance	C <sub>cb</sub>	V <sub>CB</sub> =20V, I <sub>E</sub> =0, f=1MHz			8	pF

\* Pulse test: t<sub>p</sub> = 300 μs; d ≤ 0.02.

■ Marking

Marking	415
---------	-----

