

# FMMT413

## SOT23 NPN SILICON PLANAR AVALANCHE TRANSISTOR

PROVISIONAL DATASHEET ISSUE 2 - MARCH 1996

### FEATURES

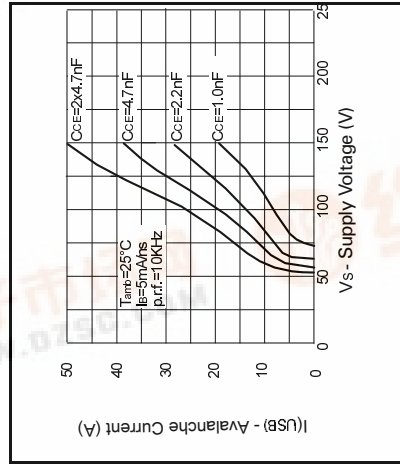
- \* Avalanche mode operation
  - \* 50A Peak avalanche current
  - \* Low inductance packaging
- APPLICATIONS
- \* Laser LED drivers
  - \* Fast edge generation
  - \* High speed pulse generators

PARTMARKING DETAIL - 413

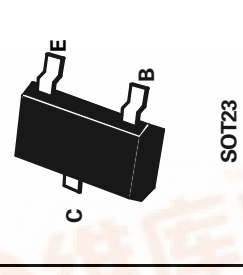
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Emitter Inductance	$L_e$		2.5		nH	Standard SOT23 leads
Transition Frequency	$f_T$		150		MHz	$I_C=10mA, V_{CE}=5V$ $f=20MHz$
Collector-Base Capacitance	$C_{cb}$		2		pF	$V_{CB}=10V, I_E=0$ $f=1MHz$

### ELECTRICAL CHARACTERISTICS

### TYPICAL CHARACTERISTICS



# FMMT413



查询FMMT413供应商

捷多邦, 专业PCB打样工厂, 24小时加急出货

### ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V <sub>CBO</sub>	150	V
Collector-Emitter Voltage	V <sub>CEO</sub>	50	V
Emitter-Base Voltage	V <sub>EBO</sub>	6	V
Continuous Collector Current	I <sub>C</sub>	100	mA
Peak Collector Current (25ns Pulse Width)	I <sub>CM</sub>	50	A
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 (at T<sub>amb</sub> = 25°C unless otherwise stated).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Emitter Breakdown Voltage	V <sub>(BR)CES</sub>	150			V	I <sub>C</sub> =100μA
Collector-Emitter Breakdown Voltage	V <sub>CEO(sus)</sub>	50			V	I <sub>C</sub> =10mA
Emitter-Base Breakdown Voltage	V <sub>(BR)EBO</sub>	6			V	I <sub>E</sub> =100μA
Collector Cut-Off Current	I <sub>CBO</sub>			0.1	μA	V <sub>CE</sub> =120V
Emitter Cut-Off Current	I <sub>EBO</sub>			0.1	μA	V <sub>EB</sub> =4V
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>			0.15	V	I <sub>C</sub> =10mA, I <sub>B</sub> =1mA
Base-Emitter Saturation Voltage	V <sub>BE(sat)</sub>			0.8	V	I <sub>C</sub> =10mA, I <sub>B</sub> =1mA
Current in Second Breakdown (Pulsed)	I <sub>USB</sub>	22			A	V <sub>CE</sub> =110V, C <sub>CE</sub> =4.7nF*
Static Forward Current Transfer Ratio	h <sub>FE</sub>	31			A	V <sub>CE</sub> =130V, C <sub>CE</sub> =4.7nF*
		50				I <sub>C</sub> =10mA, V <sub>CE</sub> =10V

\* Measured within a circuit possessing an approximate loop inductance of 12nH. The I<sub>(USB)</sub> monitor circuitry reflects 0.15 Ohm into the Collector-Emitter Discharge Loop. The FMMT413 device is a development product. Samples availability and release to production scheduled for June 1996

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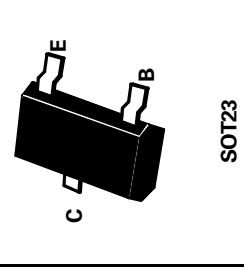
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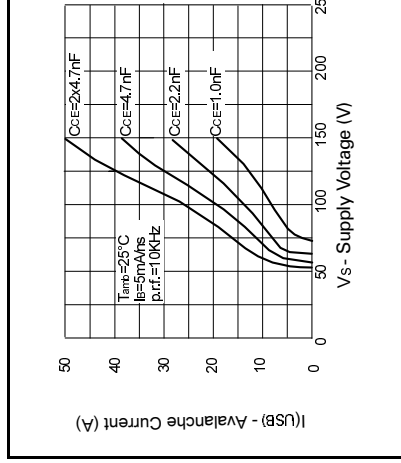
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