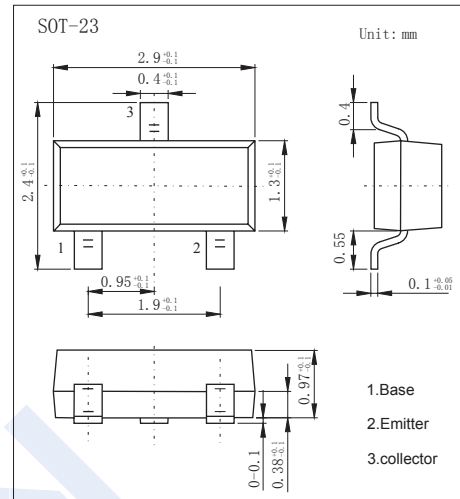


## NPN Transistors

### FMMT619

#### ■ Features

- Collector Current Capability  $I_c=2A$
- Collector Emitter Voltage  $V_{CE0}=50V$
- Complementary to FMMT720



#### ■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CBO}$	50	V
Collector - Emitter Voltage	$V_{CEO}$	50	
Emitter - Base Voltage	$V_{EBO}$	5	
Collector Current - Continuous	$I_c$	2	A
Collector Current - Pulse	$I_{CP}$	6	
Base Current	$I_B$	0.5	
Collector Power Dissipation	$P_C$	625	mW
Junction Temperature	$T_J$	150	°C
Storage Temperature Range	$T_{stg}$	-55 to 150	

## NPN Transistors

## FMMT619

## ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V <sub>CBO</sub>	I <sub>C</sub> = 100 μA, I <sub>E</sub> = 0	50			V
Collector- emitter breakdown voltage	V <sub>CEO</sub>	I <sub>C</sub> = 10 mA, I <sub>B</sub> = 0	50			
Emitter - base breakdown voltage	V <sub>EBO</sub>	I <sub>E</sub> = 100 μA, I <sub>C</sub> = 0	5			
Collector-base cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> = 40 V, I <sub>E</sub> = 0			100	nA
Collector- emitter cut-off current	I <sub>CEs</sub>	V <sub>CE</sub> = 40 V, I <sub>E</sub> = 0			100	
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = 4V, I <sub>C</sub> =0			100	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =100 mA, I <sub>B</sub> =10mA			20	mV
		I <sub>C</sub> =1A, I <sub>B</sub> =10mA			200	
		I <sub>C</sub> =2A, I <sub>B</sub> =50mA			220	
Base - emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =2A, I <sub>B</sub> =50mA			1	V
Base-emitter turn-on voltage	V <sub>BE(on)</sub>	V <sub>CE</sub> = 2V, I <sub>C</sub> = 2A			1	
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> = 2V, I <sub>C</sub> = 10mA	200			
		V <sub>CE</sub> = 2V, I <sub>C</sub> = 200mA	300			
		V <sub>CE</sub> = 2V, I <sub>C</sub> = 1A	200			
		V <sub>CE</sub> = 2V, I <sub>C</sub> = 2A	100			
		V <sub>CE</sub> = 2V, I <sub>C</sub> = 6A		40		
Turn-on time	t <sub>on</sub>	V <sub>CC</sub> =10V, I <sub>C</sub> =1A		170		ns
Turn-off time	t <sub>off</sub>	I <sub>B1</sub> =-I <sub>B2</sub> =10mA		750		
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 10V, f=1MHz			20	pF
Transition frequency	f <sub>t</sub>	V <sub>CE</sub> = 10V, I <sub>C</sub> = 50mA, f=100MHz	100			MHz

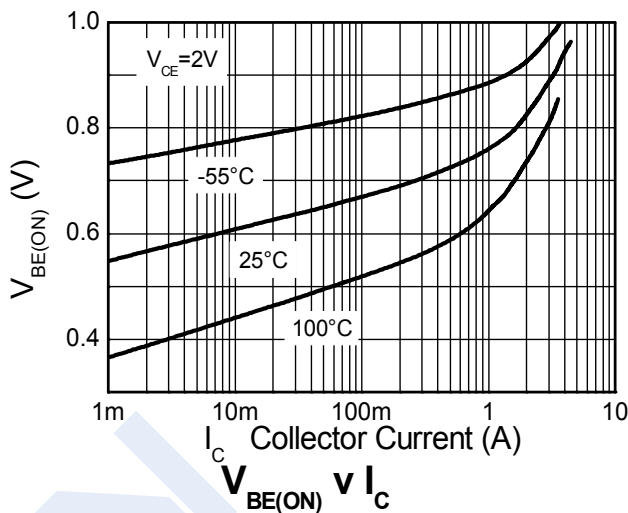
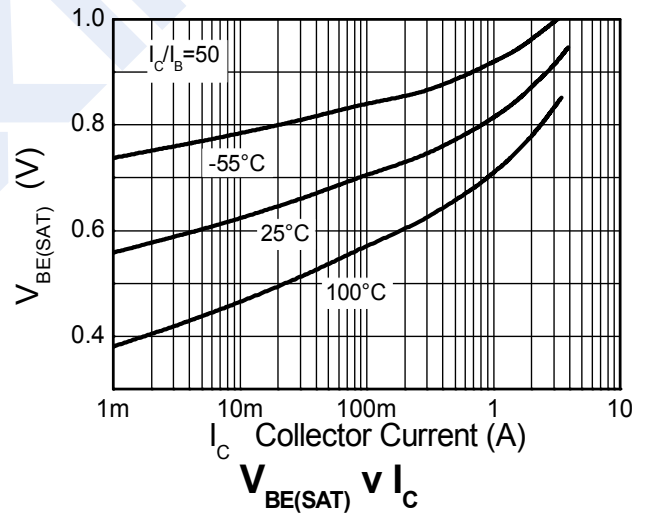
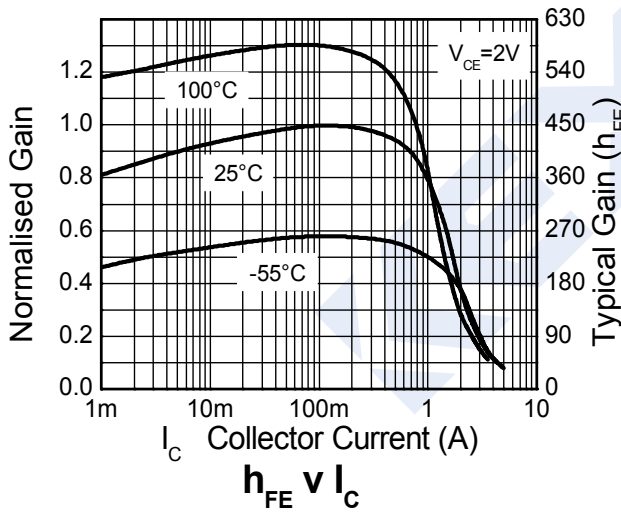
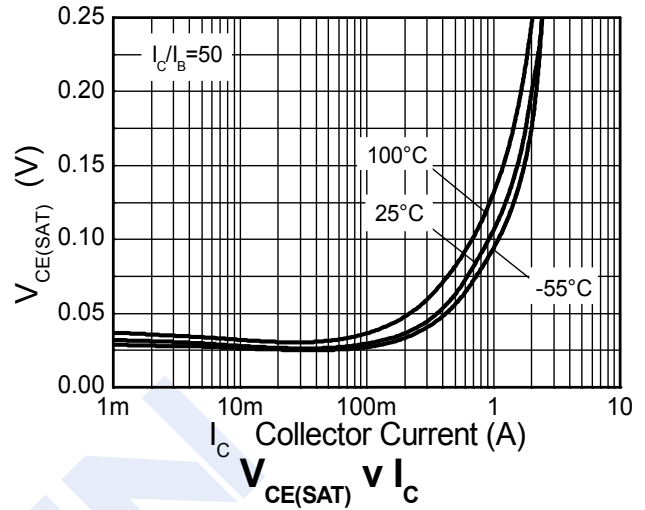
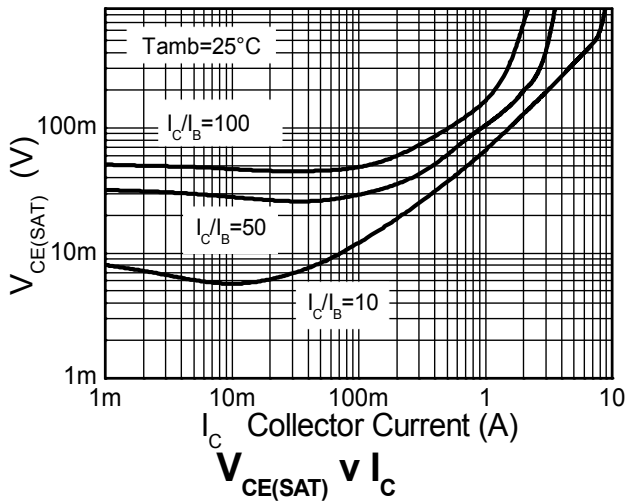
## ■ Marking

Marking	619
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### NPN Transistors

### FM6T619

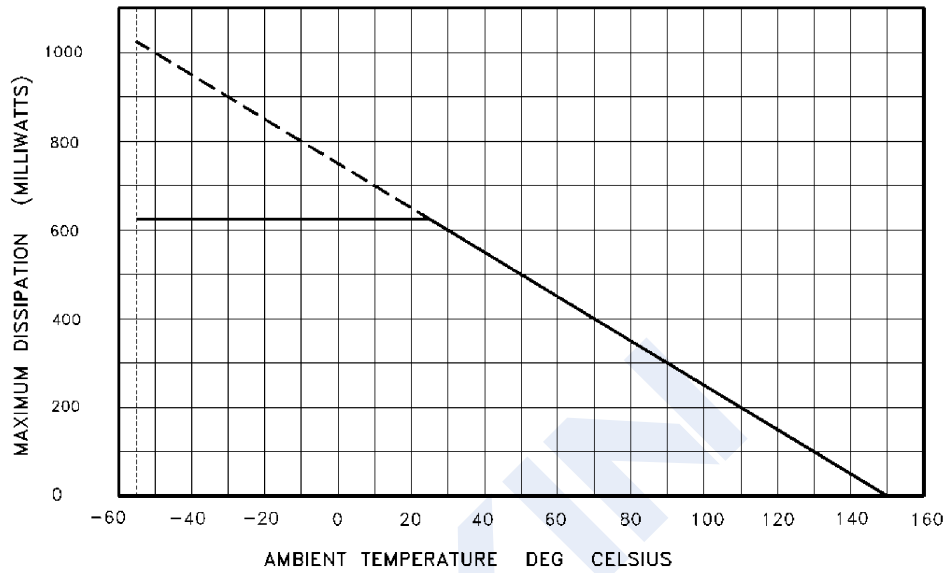
■ Typical Characteristics



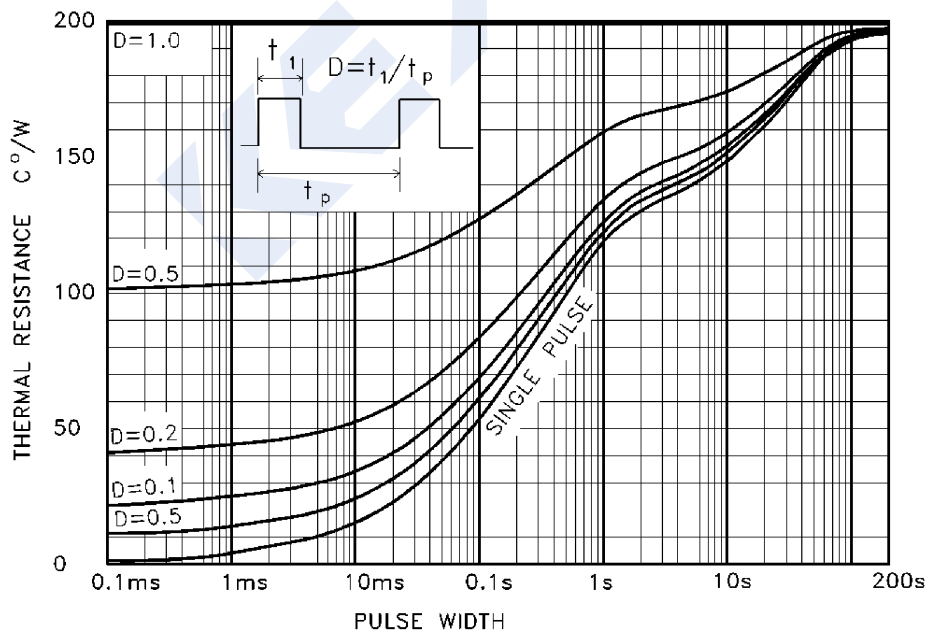
### NPN Transistors

### FM6T619

■ Typical Characteristics



DERATING CURVE



MAXIMUM TRANSIENT THERMAL RESISTANCE