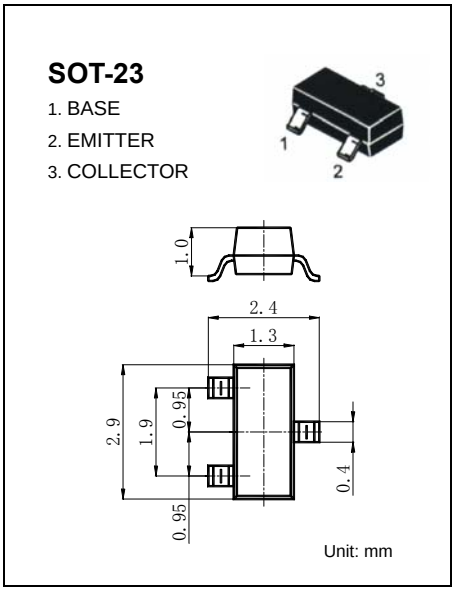
JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

SOT-23 Plastic-Encapsulate Transistors



FMMT491 TRANSISTOR (NPN)

FEATURES

Power dissipation

$P_{CM:}$ 0.5 W (Tamb=25℃)

Collector current

$I_{CM:}$ 1 A

Collector-base voltage

$V_{(BR)CBO}$: 80 V

Operating and storage junction temperature range

T_J, T_{stg}: -55℃ to +150℃

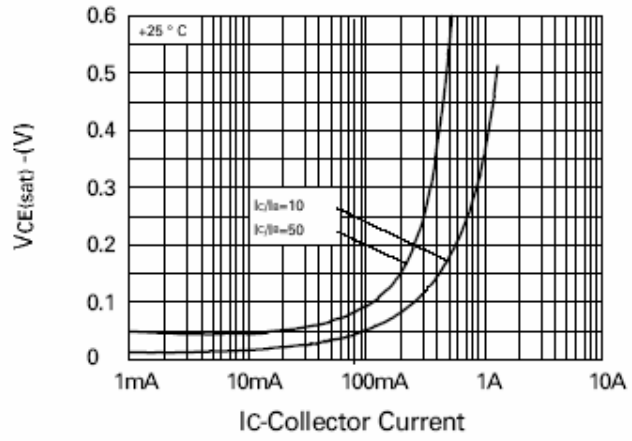
MARKING:491

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

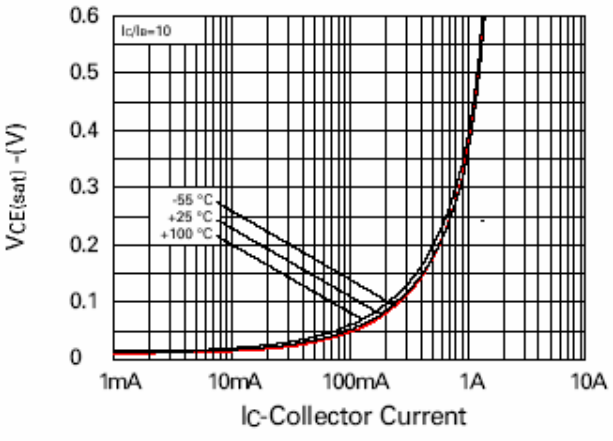
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	Ic=100μA, I_E=0	80			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$[1]	Ic=10mA, I_B=0	60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA, I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=60V, I_E=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=4V, I_C=0			0.1	μA
DC current gain	$h_{FE(1)}$	V_{CE}=5V, I_C=1mA	100			
	$h_{FE(2)}$[1]	V_{CE}=5V, I_C=500mA	100		300	
	$h_{FE(3)}$[1]	V_{CE}=5V, I_C=1A	80			
	$h_{FE(4)}$[1]	V_{CE}=5V, I_C=2A	30			
Collector-emitter saturation voltage	$V_{CE(sat)1}$[1]	I_C=500mA, I_B=50mA			0.25	V
	$V_{CE(sat)2}$[1]	I_C=1A, I_B=100mA			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$[1]	I_C=1A, I_B=100mA			1.1	V
Base-emitter voltage	V_{BE}[1]	V_{CE}=5V, I_C=1A			1	V
Transition frequency	f_T	V_{CE}=10V, I_C=50mA, f=100MHz	150			MHz
Collector output capacitance	C_{ob}	V_{CB}=10V, f=1MHz			10	pF

[1]Measured under pulsed conditions, Pulse width=300μs, Duty cycle≤2%.

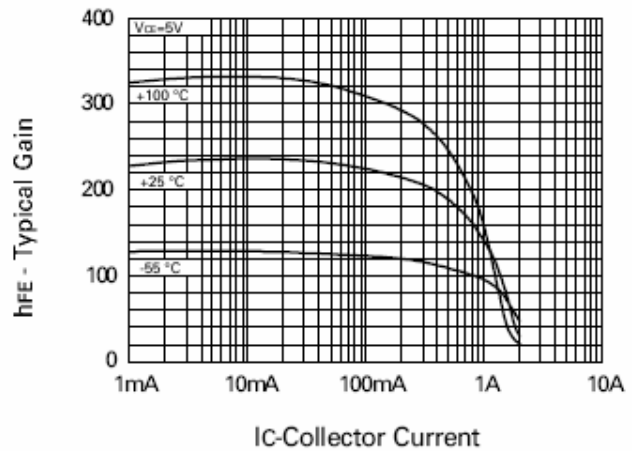
Typical Characteristics FMMT491



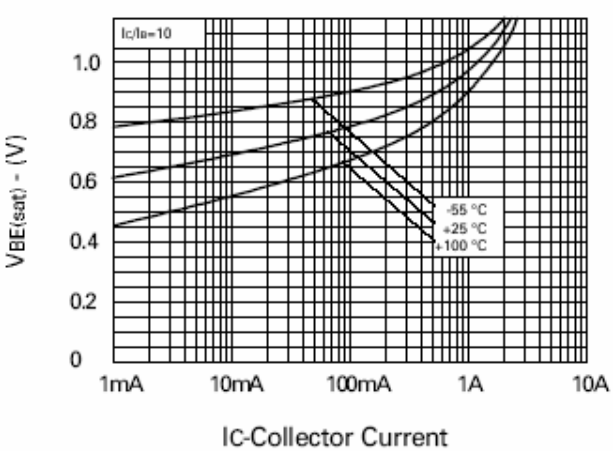
VCE(sat) v IC



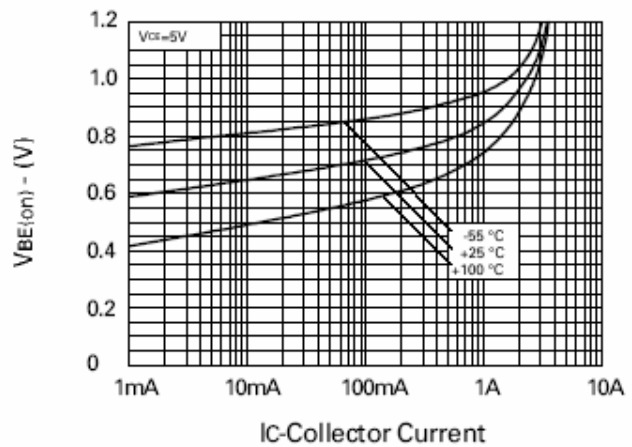
VCE(sat) v IC



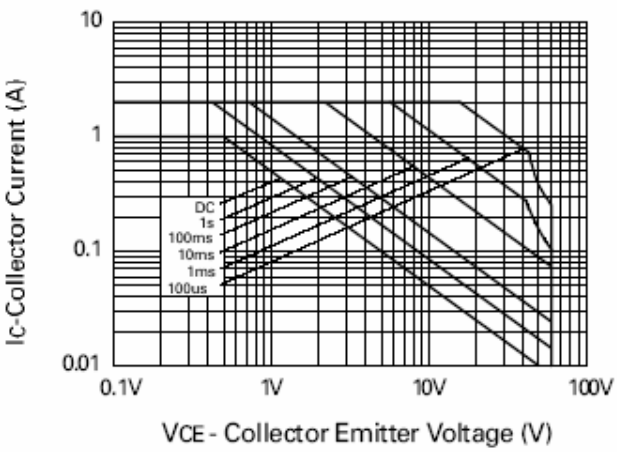
hFE V IC



VBE(sat) v IC



VBE(on) v IC



Safe Operating Area