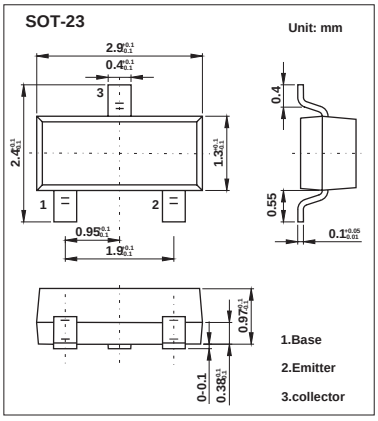
High Voltage High Performance Transistor

FMMT497



Features

- SOT23 NPN silicon planar

Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	300	V
Collector-emitter voltage	V_{CEO}	300	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	500	mA
Peak collector current	I_{CM}	1	A
Base current	I_B	200	mA
Power dissipation	P_{tot}	500	mW
Operating and storage temperature range	T_j,T_{stg}	-55 to +150	℃

Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100ìA	300			V
Collector-emitter breakdown voltage *	$V_{(BR)CEO}$	I_C=10mA	300			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100ìA	5			V
Collector cutoff current	I_{CBO}	V_{CB}=250V			100	nA
Collector Cut-Off Current	I_{CES}	V_{CE}=250V			100	nA
Emitter cut-off current	I_{EBO}	V_{EB}=4V			100	nA
Collector-emitter saturation voltage *	$V_{CE(sat)}$	I_C=100mA,I_B=10mA I_C=250mA,I_B=25mA			0.2 0.3	V
Base-emitter saturation voltage *	$V_{BE(sat)}$	I_C=250mA,I_B=25mA			1.0	V
Base-emitter voltage *	$V_{BE(ON)}$	I_C=250mA,V_{CE}=10V			1.0	V
Static Forward Current Transfer Ratio	h_{FE}	I_C=1mA, V_{CE}=10V	100			
		I_C=100mA, V_{CE}=10V*	80		300	
		I_C=250mA, V_{CE}=10V*	20			
Transition Frequency	f_T	I_C=50mA,V_{CE}=10V,f=100MHz	75			MHz
Collector-Base Breakdown Voltage	C_{obo}	V_{CB}=10V,f=1MHz			5	pF

* Pulse test: tp = 300 ìs; d ≤ 0.02.

Marking

Marking	497

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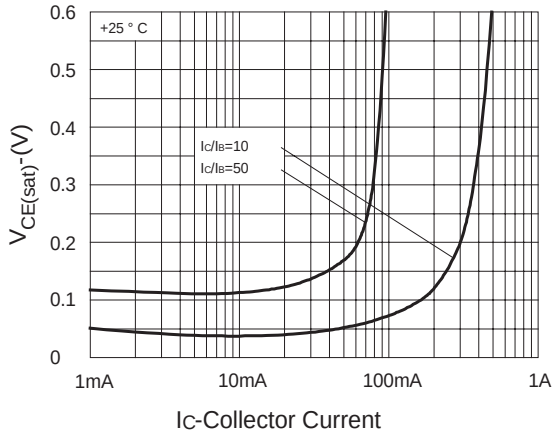
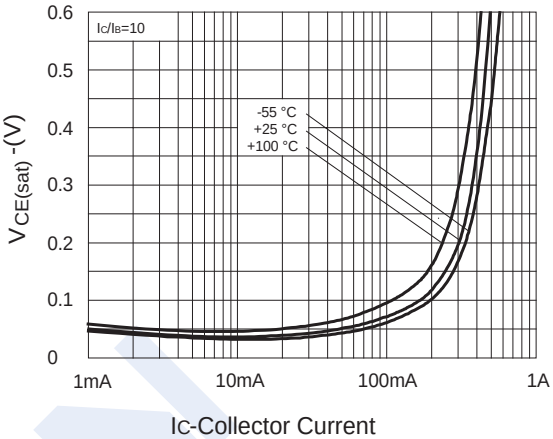
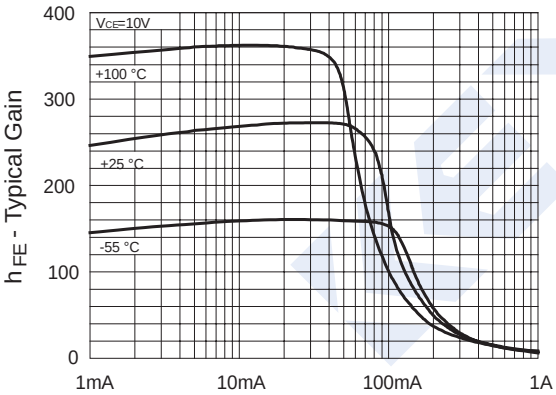
■ Typical Characterisitics



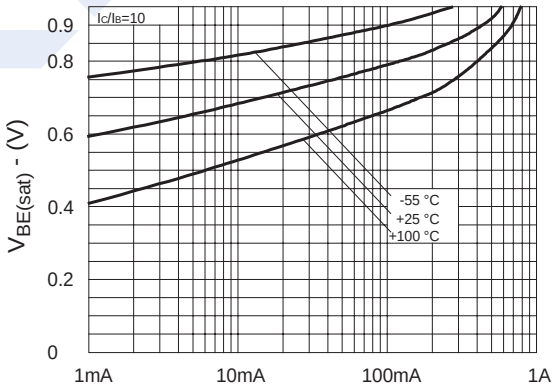
VCE(sat) v IC



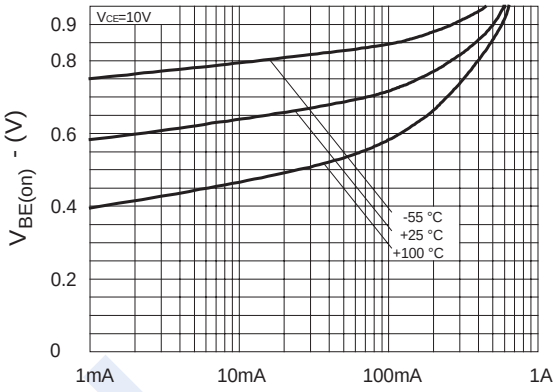
VCE(sat) v IC



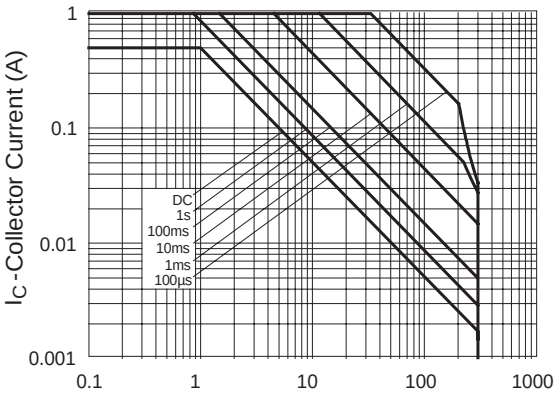
hFE V IC



VBE(sat) v IC



VBE(on) v IC



Safe Operating Area