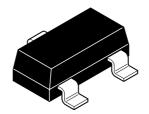
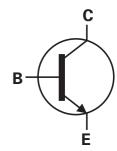


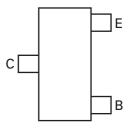
FMMT497 SOT23 NPN silicon planar high voltage high performance transistor

Complementary part number - FMMT597

Device marking - 497







Pinout - top view

Absolute maximum ratings

Parameter	Symbol	Value	Unit
Collector-base voltage	V _{CBO}	300	V
Collector-emitter voltage	V _{CEO}	V _{CEO} 300	
Emitter-base voltage	V _{EBO}	5	V
Continuous collector current	I _C	500	mA
Peak pulse current	I _{CM}	1	А
Base current	I _B	200	mA
Power dissipation at T _{amb} =25°C	P _{tot}	500	mW
Operating and storage temperature range	T _j :T _{stg}	-55 to +150	°C

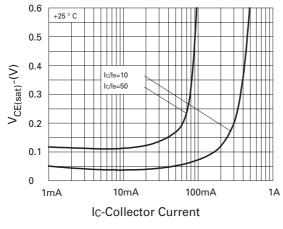
Electrical characteristics (at T_{amb} = 25°C unless otherwise stated)

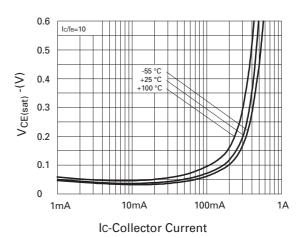
Parameter	Symbol	Min.	Тур.	Max	Unit	Conditions	
Collector-base breakdown voltage	V _{(BR)CBO}	300		•	V	I _C = 100μA	
Collector-emitter breakdown voltage	V _{CEO(sus)}	300			V	I _C = 10mA ^(*)	
Emitter-base breakdown voltage	V _{(BR)EBO}	5			V	$I_E = 100 \mu A$	
Collector cut-off current	I _{CBO}			100	nA	V _{CB} = 250V	
Collector cut-off current	I _{CES}			100	nA	V _{CES} = 250V	
Emitter cut-off current	I _{EBO}			100	nA	V _{EB} = 4V	
Collector-emitter saturation voltage	V _{CE(sat)}			0.2 0.3	V	I _C = 100mA, I _B = 10mA I _C = 250mA, I _B = 25mA	
Base-emitter saturation voltage	V _{BE(sat)}			1.0	V	I _C = 250mA, I _B = 25mA	
Base-emitter turn on voltage	V _{BE(on)}			1.0	V	I _C = 250mA, V _{CE} = 10V	
Static forward current transfer ratio	h _{FE}	100 80 20		300		$I_C = 1mA$, $V_{CE} = 10V$ $I_C = 100mA$, $V_{CE} = 10V^{(*)}$ $I_C = 250mA$, $V_{CE} = 10V^{(*)}$	
Transition frequency	f _T	75			MHz	I _C = 50mA, V _{CE} = 10V f = 100MHz	
output capacitance	C _{obo}			5	pF	V _{CB} = 10V, f = 1MHz	
Switching performance	td		53		ns	V _{CC} = 100V, I _C = 100mA,	
	tr		126		ns	lb1 = -lb2 = 10mA	
	ts		2.58		μS		
	tf		228		ns		

NOTES

(*) Measured under pulsed conditions. Pulse width = $300\mu s$. Duty cycle $\leq 2\%$.

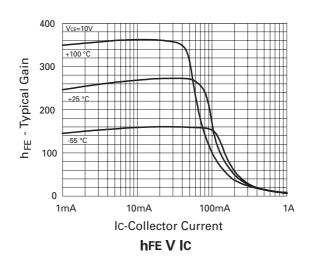
Typical characteristics

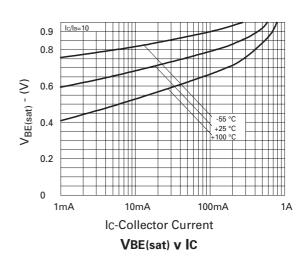


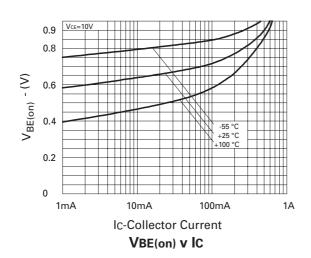


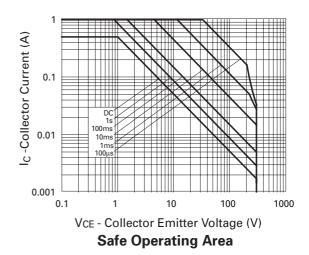
VCE(sat) v IC





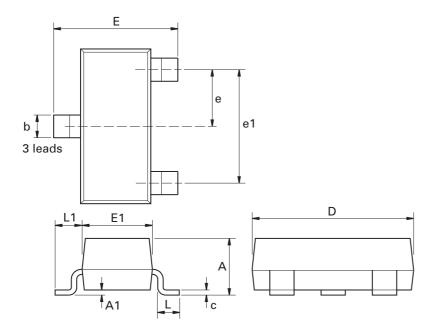






FMMT497

Package outline - SOT23



Dim.	Millin	neters	Inc	hes	Dim.	Millimeters		Inches	
	Min.	Max.	Min.	Max.		Min.	Max.	Max.	Max.
Α	-	1.12	-	0.044	e1	1.90	NOM	0.075	NOM
A1	0.01	0.10	0.0004	0.004	Е	2.10	2.64	0.083	0.104
b	0.30	0.50	0.012	0.020	E1	1.20	1.40	0.047	0.055
С	0.085	0.120	0.003	0.008	L	0.25	0.62	0.018	0.024
D	2.80	3.04	0.110	0.120	L1	0.45	0.62	0.018	0.024
е	0.95	NOM	0.0375	NOM	-	-	-	-	-

Note: Controlling dimensions are in millimeters. Approximate dimensions are provided in inches

FMMT497

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"Not recommended for new designs"	Device is still in production to support existing designs and production			
"Obsolete"	Production has been discontinued			
Datasheet status key:				
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"Provisional version"	This term denotes a pre-release datasheet. It provides a clear indication of anticipated performan However, changes to the test conditions and specifications may occur, at any time and without notic			
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