

FMMTA42 SOT23 NPN Silicon planar high voltage transistor

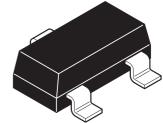
Device marking

FMMTA42 - 3E

Complementary types

FMMTA92

Absolute maximum ratings



Parameter	Symbol	FMMTA42	Unit
Collector-base voltage	V _{CBO}	300	V
Collector-emitter voltage	V _{CEO}	300	V
Emitter-base voltage	V _{EBO}	5	V
Continuous collector current	I _C	200	mA
Power dissipation at T _{amb} =25°C	P _{tot}	330	mW
Operating and storage temperature range	T _j :T _{stg}	-55 to +150	°C

Electrical characteristics (at $T_{amb} = 25$ °C).

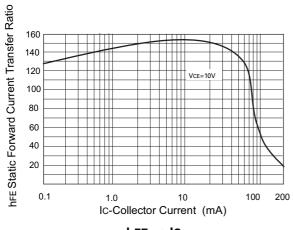
Parameter	Symbol	Min.	Max.	Unit	Conditions
Collector-base breakdown voltage	V _{(BR)CBO}	300		V	I _C =100μA, I _E =0
Collector-emitter breakdown voltage	V _{(BR)CEO}	300		V	I _C =1mA, I _B =0 ^(*)
Emitter-base breakdown voltage	V _{(BR)EBO}	6		V	I _E =100μA, I _C =0
Collector cut-off current	I _{CBO}		0.1	μΑ	V _{CB} =200V, I _E =0
				μΑ	V _{CB} =160V, I _E =0
Emitter cut-off current	I _{EBO}		0.1	μΑ	$V_{EB}=6V$, $I_{C}=0$
				μΑ	$V_{EB}=4V$, $I_{C}=0$
Collector-emitter saturation voltage	V _{CE(sat)}		0.5	V	I _C =20mA, I _B =2mA ^(*)
Base-emitter saturation voltage	V _{BE(sat)}		0.9	V	I _C =20mA, I _B =2mA ^(*)
Static forward	h _{FE}	25			I _C =1mA, V _{CE} =10V ^(*)
current transfer ratio		40			I _C =10mA, V _{CE} =10V ^(*)
		40			I _C =30mA, V _{CE} =10V ^(*)
Transition frequency	f _T	50		MHz	I _C =10mA, V _{CE} =20V f=20MHz
Output capacitance	C _{obo}		6	рF	V _{CB} =20V, f=1MHz

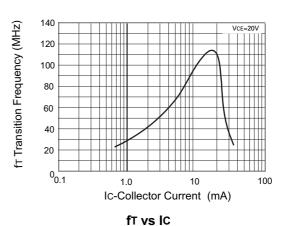
NOTES:

(*) Measured under pulsed conditions. Pulse width \leq 300 μ s; duty cycle \leq 2%.

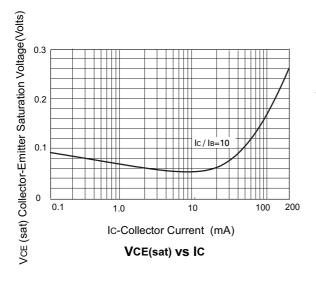
FMMTA42

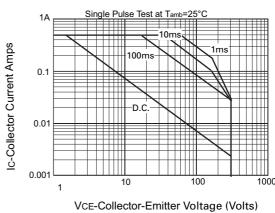
Typical characteristics





hFE vs IC





FMMTA42

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