

FEATURES

BVCEO > 60V.

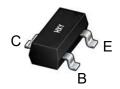
IC = 1A Continuous Collector Current.

ICM = 2A Peak Pulse Current.

500mW Power Dissipation.

h_{FE} Characterized up to 2A for High Current Gain Hold Up.

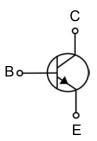
Complementary PNP Type: FMMT591.



SOT-23

Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
FMMT491	SOT-23	491	3000



MAXIMUM RATINGS (Ta=25 unless otherwise noted)

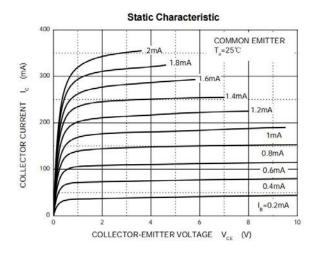
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	60	V
V _{EBO}	Emitter-Base Voltage	5	V
Ic	Collector Current	1	Α
I _{CM}	Peak Pulse Current	2	Α
Pc	Collector Power Dissipation	250	mW
R _{OJA}	Thermal Resistance From Junction To Ambient	500	°C/W
T _J ,T _{stg}	Operation Junction And Storage Temperature Range	-55~+150	$^{\circ}$ C

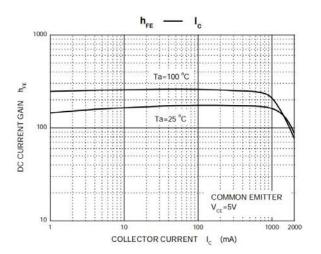
ELECTRICAL CHARACTERISTICS(Ta=25 unless otherwise noted)

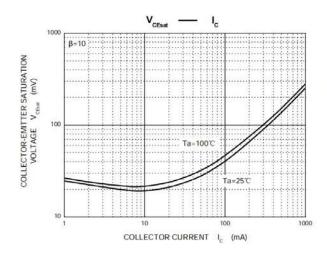
Symbol	Parameter	Test conditions	Min	Тур	Max	Unit
V _{(BR)CBO} Collector-base breakdown voltage		I _C =100μA, I _E =0	80			V
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =10mA, I _B =0	60			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =100μA, I _C =0	5			V
I _{CBO}	Collector cut-off current	V _{CB} =60V, I _E =0			100	nA
I _{EBO}	Emitter cut-off current	V _{EB} =4V, I _C =0			100	nA
h _{FE} (1)	DC current gain(1)	V _{CE} =5V, I _C =1mA	100			
h _{FE} (2)	DC current gain(2)	V _{CE} =5V, I _C =500mA	100		300	
h _{FE} (3)	DC current gain(3)	V _{CE} =5V, I _C =1A	80			
h _{FE} (4)	DC current gain(4)	V _{CE} =5V, I _C =2A	30			
V _{CE(sat)} 1	Collector-emitter saturation voltage	I _C =500mA, I _B =50mA			0.25	V
V _{CE(sat)} 2	Collector-emitter saturation voltage	I _C =1A, I _B =100mA			0.5	V
V _{BE(sat)}	Base-emitter saturation voltage	I _C =1A, I _B =100mA	I _B =100mA		1.1	V
V_{BE}	Base-emitter voltage	V _{CE} =5V, I _C =1A			1	V
f⊤	Transition frequency	V _{CE} =10V, I _C =50mA, f=100MHz	150			MHz
C _{ob}	Collector output capacitance	VCB=10V,f=1MHz			10	pF

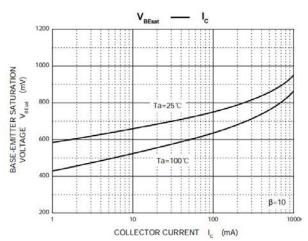


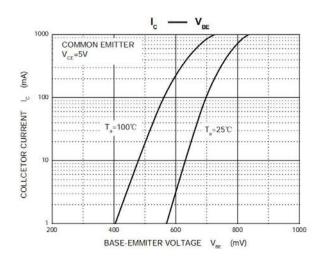
Typical Characteristics

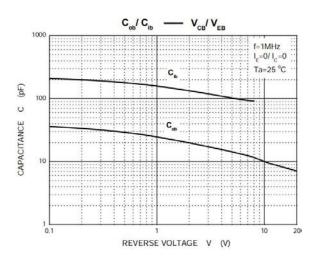


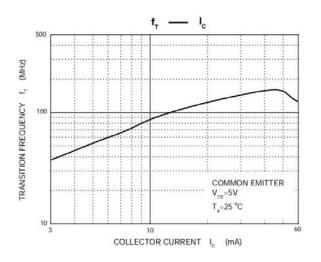


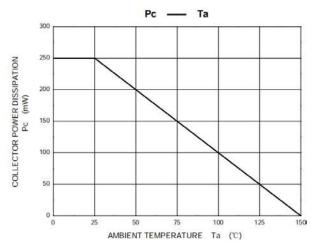




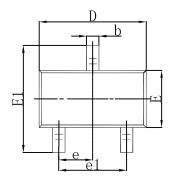


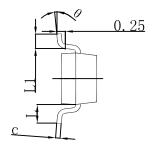


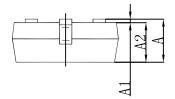




SOT-23 Package Outline Dimensions







Symbol	Dimensions In Millimeters		Dimensions In Inches		
Syriboi	Min	Max	Min	Max	
Α	0.900	1.150	0.035	0.045	
A1	0.000	0.100	0.000	0.004	
A2	0.900	1.050	0.035	0.041	
b	0.300	0.500	0.012	0.020	
С	0.080	0.150	0.003	0.006	
D	2.800	3.000	0.110	0.118	
E	1.200	1.400	0.047	0.055	
E1	2.250	2.550	0.089	0.100	
е	0.950 TYP		0.037 TYP		
e1	1.800	2.000	0.071	0.079	
L	0.550 REF		0.022 REF		
L1	0.300	0.500	0.012	0.020	
θ	0°	8°	0°	8°	



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