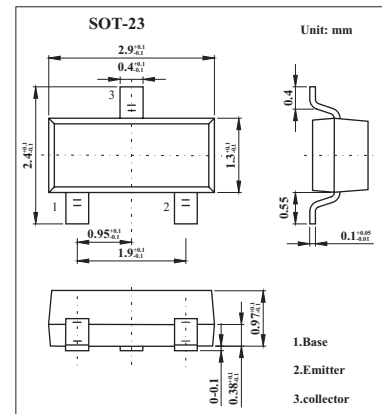


Power Darlington Transistor

FMMT634

■ Features

- 625mW power dissipation
- Highest current capability SOT23 darlington
- Very high hFE

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	120	V
Collector-emitter voltage	V_{CE0}	100	V
Emitter-base voltage	V_{EB0}	12	V
Collector current	I_C	900	mA
Peak collector current	I_{CM}	5	A
Power dissipation	P_{tot}	625	mW
Operating and storage temperature range	T_j, T_{stg}	-55 to +150	$^\circ\text{C}$

FMMT634

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	V(BR)CBO	I _C =100μA	120	170		V
Collector-emitter breakdown voltage *	V(BR)CEO	I _C =10mA	100	115		V
Emitter-base breakdown voltage	V(BR)EBO	I _E =100μA	12	16		V
Collector cutoff current	I _{CBO}	V _{CB} =80V			10	nA
Collector Emitter Cut-Off Current	I _{CES}	V _{CE} =80V			100	nA
Emitter cut-off current	I _{EBO}	V _{EB} =7V			10	nA
Collector-emitter saturation voltage *	V _{CE(sat)}	I _C =100mA, I _B =1mA I _C =250mA, I _B =1mA I _C =500mA, I _B =5mA I _C =900mA, I _B =5mA I _C =900mA, I _B =5mA I _C =1A, I _B =5mA		0.67 0.72 0.75 0.82 0.68 0.85	0.75 0.80 0.85 0.93 0.96	V
Base-emitter saturation voltage *	V _{BE(sat)}	I _C =1A, I _B =5mA		1.5	1.65	V
Base-emitter voltage *	V _{BE(ON)}	I _C =1A, V _{CE} =5V		1.33	1.5	V
Static Forward Current Transfer Ratio*	h _{FE}	I _C =10mA, V _{CE} =5V		50K		
		I _C =100mA, V _{CE} =5V	20K	60K		
		I _C =1A, V _{CE} =5V	15K	14K		
		I _C =2A, V _{CE} =5V	5K	600		
		I _C =5A, V _{CE} =5V		24K		
		I _C =1A, V _{CE} =2V				
Current-gain-bandwidth product	f _T	I _C =50mA, V _{CE} =10V, f=100MHz		140		MHz
Output capacitance	C _{obo}	V _{CB} =10V, f=1MHz		9	20	pF
Switching times	t _{on}	I _C =500mA, V _{CC} =20V		290		ns
	t _{off}	I _B =±1mA		2.4		μs

* Pulse test: t_p = 300 μs; d ≤ 0.02.

■ Marking

Marking	634
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