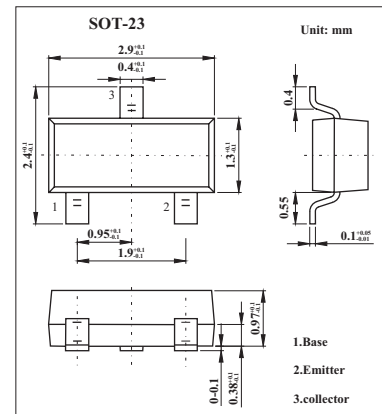


Power Darlington Transistor

FMMT614

■ Features

- hFE up to 5k at $I_C = 500\text{mA}$
- Fast switching
- Low $V_{CE(sat)}$ at High I_C

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	120	V
Collector-emitter voltage	V_{CEO}	100	V
Emitter-base voltage	V_{EBO}	10	V
Collector current	I_C	500	mA
Peak collector current	I_{CM}	2	A
Power dissipation	P_{tot}	500	mW
Operating and storage temperature range	T_j, T_{stg}	-55 to +150	$^\circ\text{C}$

FMMT614

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	V(BR)CBO	I _C =10μA	120	300		V
Collector-emitter breakdown voltage *	V(BR)CEO	I _C =10mA	100	130		V
Emitter-base breakdown voltage	V(BR)EBO	I _E =10μA	10	10		V
Collector cutoff current	I _{CBO}	V _{CB} =100V, I _E =0		0.02	10	nA
Collector cutoff current	I _{CES}	V _{CE} =100V, I _E =0			10	μA
Emitter cut-off current	I _{EBO}	V _{EB} =8V			100	nA
Collector-emitter saturation voltage *	V _{CE(sat)}	I _C =500mA, I _B =5mA I _C =100mA, I _B =0.1mA		0.9 0.78	1.0 0.9	V
Base-emitter saturation voltage *	V _{BE(sat)}	I _C =500mA, I _B =5mA		1.7	1.9	V
Base-emitter voltage *	V _{BE(ON)}	I _C =500mA, V _{CE} =5V		1.5	1.8	V
DC current gain *	h _{FE}	I _C =100mA, V _{CE} =5V	15K			
		I _C =500mA, V _{CE} =5V	5K			
Output capacitance	C _{obo}	V _{CB} =10V, f=100MHz		6		pF
Switching times	t _{on}	I _C =100μA, V _S =10V		0.7		μs
	t _{off}	I _B =0.1mA		2.5		μs

* Pulse test: t_p = 300 μs; d ≤ 0.02.

■ Marking

Marking	614
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