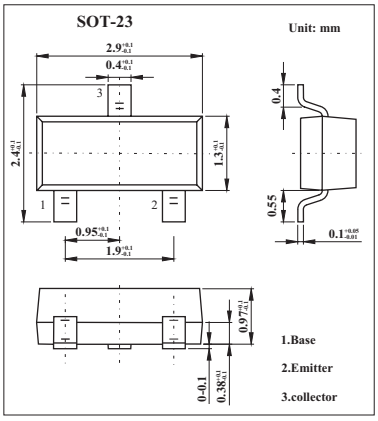
Power Darlington Transistor

FMMT614



Features

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

Absolute Maximum Ratings Ta = 25℃

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	℃

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■ Electrical Characteristics Ta = 25℃

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	ton	I_C=100μA, V_S=10V		0.7		μs
	toff	I_B=0.1mA		2.5		μs

* Pulse test: tp = 300 μs; d ⩽ 0.02.

■ Marking

Marking	614