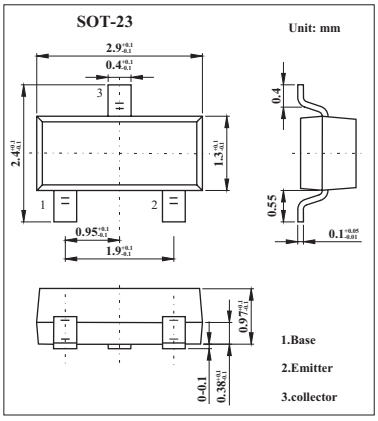
Power Darlington Transistor

FMMT734



■ Features

- 625mW Power Dissipation
- Very high h_{FE} at high current (5A)
- Extremely low $V_{CE(sat)}$ at high current (1A)

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-100	V
Collector-emitter voltage	V_{CEO}	-100	V
Emitter-base voltage	V_{EBO}	-12	V
Collector current	I_C	-800	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	℃

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■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-100μA	-100	-130		V
Collector-emitter breakdown voltage *	$V_{(BR)CEO}$	I_C=-5mA	-100	-116		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-100μA	-12	-17		V
Collector cutoff current	I_{CBO}	V_{CB}=-80V			-10	nA
Collector cutoff current	I_{CEO}	V_{CE}=-80V			-200	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		-0.68	-0.75	V
		I_C=-250mA, I_B=-1mA		-0.72	-0.80	V
		I_C=-500mA, I_B=-5mA		-0.78	-0.86	V
		I_C=-800mA, I_B=-5mA		-0.86	-0.97	V
		I_C=-800mA, I_B=-5mA		-0.72		V
		I_C=-1A, I_B=-5mA		-0.90	-1.05	V
Base-emitter saturation voltage *	$V_{BE(sat)}$	I_C=-1A,I_B=-5mA		-1.6	-1.75	V
Base-Emitter Turn-On Voltage *	$V_{BE(ON)}$	I_C=-1A,V_{CE}=-5V		-1.3	-1.75	V
Static Forward Current Transfer Ratio*	h_{FE}	I_C=-10mA, V_{CE}=-5V		60K		
		I_C=-100mA, V_{CE}=-5V	20K	60K		
		I_C=-1A, V_{CE}=-5V	15K	50K		
		I_C=-2A, V_{CE}=-5V	5K	15K		
		I_C=-5A, V_{CE}=-5V		150		
		I_C=-1A, V_{CE}=-2V		20K		
Transition Frequency	f_T	I_C=-10mA,V_{CE}=-10V,f=100MHz		140		MHz
Output Capacitance	C_{obo}	V_{CB}=-10V,f=1MHz		14	25	pF
Turn-On Time	ton	I_C=-500mA, V_{CC}=-20V		460		ns
Turn-Off Time	toff	I_B=±1mA		1200		ns

* Pulse test: tp = 300 μs; d ⩽ 0.02.

■ Marking

Marking	734