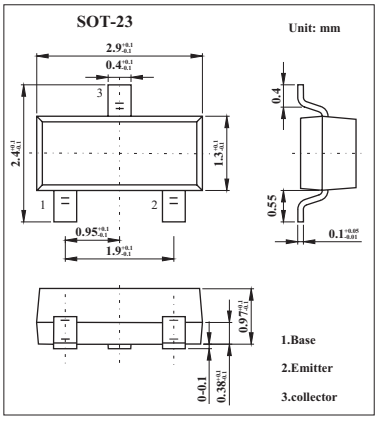
Power Darlington Transistor

FMMT634



Features

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

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}	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	℃

FMMT634

■ Electrical Characteristics Ta = 25℃

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	ton	I_C=500mA, V_{CC}=20V		290		ns
	toff	I_B=±1mA		2.4		μs

* Pulse test: tp = 300 μs; d ≤ 0.02.

■ Marking

Marking	634