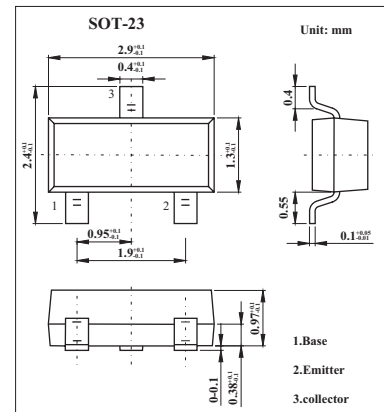


Medium Power Transistor

FMMTL619

■ Features

- Very low equivalent on-resistance; $R_{CE(sat)} = 160\text{m}\Omega$ at 1.25A.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	100	V
Collector-emitter voltage	V_{CEO}	50	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	1.25	A
Peak pulse current	I_{CM}	2	A
Base current	I_B	200	mA
Power dissipation	P_{tot}	500	mW
Operating and storage temperature range	T_j, T_{stg}	-55 to +150	$^\circ\text{C}$

FMMTL619

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A$	100	210		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=5mA^*$	50	70		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A$	5	8.5		V
Collector-base cut-off current	I_{CBO}	$V_{CB}=40V$			10	nA
Emitter-base current	I_{EBO}	$V_{EB}=4V$			10	nA
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=100mA, I_B=10mA^*$		24	45	mV
		$I_C=250mA, I_B=10mA^*$		60	100	
		$I_C=500mA, I_B=25mA^*$		100	180	
		$I_C=1.25A, I_B=125mA^*$		195	330	
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=1.25A, I_B=125mA^*$		1020	1100	mV
Base-emitter ON voltage	$V_{BE(on)}$	$I_C=1.25A, V_{CE}=2V^*$		895	1000	mV
DC current gain	h_{FE}	$I_C=10mA, V_{CE}=5V$	200	400		
		$I_C=200mA, V_{CE}=5V^*$	300	450		
		$I_C=500mA, V_{CE}=5V^*$	200	400		
		$I_C=1A, V_{CE}=5V^*$	100	230		
		$I_C=2A, V_{CE}=5V^*$	30	50		
Current-gain-bandwidth product	f_T	$I_C=50mA, V_{CE}=10V, f=100MHz$		180		MHz
Output capacitance	C_{obo}	$V_{CB}=10V, f=1MHz$		6	8	pF
Turn-on time	$t_{(on)}$	$I_C=1A, V_{CC}=10V$		182		ns
Turn-off time	$t_{(off)}$	$I_{B1}=-I_{B2}=10mA$		379		ns

* Pulse test: $t_p \leq 300 \mu s$; $d \leq 0.02$.

■ Marking

Marking	L69
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