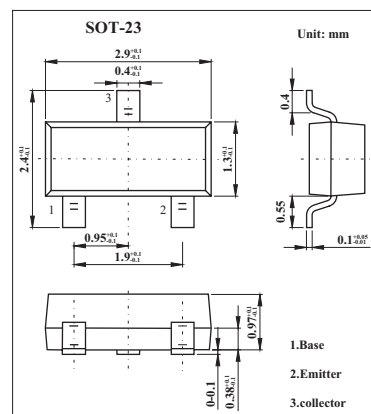


Medium Power Transistor

FMRTL718

■ Features

- Very low equivalent on-resistance; $R_{CE(sat)}=210\text{m}\Omega$ at 1.5A.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-20	V
Collector-emitter voltage	V_{CEO}	-20	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-1	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	$^\circ\text{C}$

FMMTL718

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu\text{A}$	-20	-65		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -10\text{mA}^*$	-20	-55		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu\text{A}$	-5	-8.8		V
Collector-base cut-off current	I_{CBO}	$V_{CB} = -15\text{V}$			-10	nA
Emitter-base current	I_{EBO}	$V_{EB} = -4\text{V}$			-10	nA
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100\text{mA}, I_B = -10\text{mA}^*$ $I_C = -500\text{mA}, I_B = -20\text{mA}^*$ $I_C = -1\text{A}, I_B = -50\text{mA}^*$ $I_C = -1.5\text{A}, I_B = -100\text{mA}$		-33 -130 -230 -315	-50 -180 -320 -450	mV
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -1.25\text{A}, I_B = -100\text{mA}^*$		-950	-1100	mV
Base-emitter ON voltage	$V_{BE(on)}$	$I_C = -1.25\text{A}, V_{CE} = -2\text{V}^*$		-850	-1000	mV
DC current gain	h_{FE}	$I_C = -10\text{mA}, V_{CE} = -2\text{V}$ $I_C = -100\text{mA}, V_{CE} = -2\text{V}^*$ $I_C = -0.5\text{A}, V_{CE} = -2\text{V}^*$ $I_C = -1\text{A}, V_{CE} = -2\text{V}^*$ $I_C = -1.5\text{A}, V_{CE} = -2\text{V}^*$	300 300 200 120 50	500 450 320 200 80		
Current-gain-bandwidth product	f_T	$I_C = -50\text{mA}, V_{CE} = -10\text{V}, f = 100\text{MHz}$		265		MHz
Output capacitance	C_{obo}	$V_{CB} = -10\text{V}, f = 1\text{MHz}$		9	12	pF
Turn-on time	$t_{(on)}$	$I_C = -1\text{A}, V_{CC} = -10\text{V}$		108		ns
Turn-off time	$t_{(off)}$	$I_{B1} = I_{B2} = -10\text{mA}$		121		ns

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

■ Marking

Marking	L78
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