

## Small Signal Transistor

## FMMT5087

## ■ Features

- Small signal transistor.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	-50	V
Collector-emitter voltage	$V_{CEO}$	-50	V
Emitter-base voltage	$V_{EBO}$	-3	V
Collector current	$I_C$	-100	mA
Power dissipation	$P_{tot}$	330	mW
Operating and storage temperature range	$T_j, T_{stg}$	-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB}=-10\text{V}, I_E=0$ $V_{CB}=-35\text{V}, I_E=0$			-10 -50	nA $\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=-3\text{V}, I_C=0$			-50	nA
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-10\text{mA}, I_B=-1\text{mA}$			-300	mV
Base-emitter on voltage	$V_{BE(on)}$	$I_C=-1\text{mA}, V_{CE}=-5\text{V}$			-850	mV
DC current gain	$h_{FE}$	$I_C=-100\text{mA}, V_{CE}=-5\text{V}$	250		800	
Current-gain-bandwidth product	$f_T$	$I_C=-500\text{mA}, V_{CE}=-5\text{V}, f=20\text{MHz}$	40			MHz
Small signal current transfer	$h_{fe}$	$I_C=-1\text{mA}, V_{CE}=-5\text{V}, f=1\text{KHz}$	250		900	
Noise figure	NF	$I_C=200\mu\text{A}, V_{CE}=-5\text{V}, R_g=2\text{K}\Omega$ $f=30\text{Hz to } 15\text{KHz at } 2\text{dB points}$			2	dB
Output capacitance	$C_{obo}$	$V_{CB}=-5\text{V}, f=140\text{MHz}, I_E=0$			4	pF

## ■ Marking

Marking	2m
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