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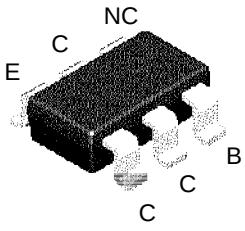
SEMICONDUCTOR TM

FMBS549



Pin 1

Package: SuperSOT-6 single
Mark : .S1

PNP Low Saturation Transistor

ThIs device is designed with high current gain and low saturation voltage with collector currents up to 2A continous. Sourced from process PB.

Absolute Maximum Ratings*

T_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CEO}	Collector-Emitter Voltage	30	V
V_{CBO}	Collector-Base Voltage	35	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current- Continuous - Peak Pulse Current	1 2	A A
T_J, T_{STG}	Operating and Storage Junction Temperature Range	-55 to +150	°C

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

NOTES:

1) These ratings are based on a maximum junction temperature of 150°C.

2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

Thermal Characteristics

T_A = 25°C unless otherwise noted

Symbol	Characteristics	Max	Units
P_D	Total Device Dissipation*	700	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient, total	180	°C/W

*Device mounted on a 1 in2 pad of 2 oz copper.

PNP Low Saturation transistor
(continued)

Electrical Characteristics T_A = 25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Max	Units
OFF CHARACTERISTICS					
BV_{CEO}	Collector to Emitter Voltage	Ic = 10 mA	30		V
BV_{CBO}	Collector to Base Voltage	Ic = 100 uA	35		V
BV_{EBO}	Emitter to Base Voltage	Ie = 100 uA	5		V
I_{CBO}	Collector Cutoff Current	Vcb = 30 V Vcb = 30 V, Ta= 100C		100 10	nA uA
I_{EBO}	Emitter Cutoff Current	Veb = 4 V		100	nA
ON CHARACTERISTICS					
h_{FE}	DC Current Gain	Vce = 2V, Ic = 50 mA Vce = 2V, Ic = 500 mA Vce = 2V, Ic = 1 A Vce = 2V, Ic = 2 A Vce = 0.8V, Ic = 500 m A	70 100 80 40 100	300	-
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	Ic = 250 mA, Ib = 25 mA Ic = 500 mA, Ib = 50 mA Ic = 1 A, Ib = 100 mA Ic = 2 A, Ib = 200 mA		200 350 500 750	mV mV mV mV
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	Ic = 1 A, Ib = 100 mA		1.25	V
$V_{BE(on)}$	Base-Emitter On Voltage	Ic = 1 A, Vce = 2 V		1	V
SMALL SIGNAL CHARACTERISTICS					
C_{obo}	Output Capacitance	Vcb = 10V, f = 1MHz		25	pF
f_T	Current Gain - Bandwidth Product	Vce = 5 V, Ic = 100mA, f = 100MHz	100		MHz

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