NEC

NPN SILICON TRANSISTOR 2SC2787

DESCRIPTION

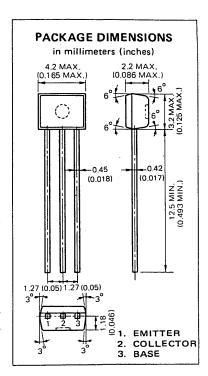
The 2SC2787 is designed for use in AM converter, AM/FM IF amplifier and local oscillator of AM/FM tuner.

FEATURES

- Small output capacitance (Cob = 1.9 pF TYP.)
- Low noise figure (NF = 2.0 dB TYP. @1.0 MHz)

ABSOLUTE MAXIMUM RATINGS

Maximum Temperatures	
Storage Temperature	
Junction Temperature +150 °C I	Maximum
Maximum Power Dissipation (Ta = 25 °C)	
Total Power Dissipation	. 250 mW
Maximum Voltages and Currents (Ta = 25 $^{\circ}$ C)	
V _{CBO} Collector to Base Voltage	50 V
V _{CEO} Collector to Emitter Voltage	
V _{EBO} Emitter to Base Voltage	. 5.0 V
I _C Collector Current	30 mA
I _B Base Current	30 mA



ELECTRICAL CHARACTERISTICS (Ta = 25 °C)

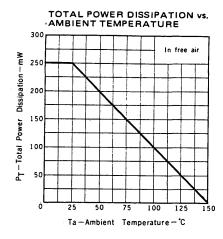
SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
hFE	DC Current Gain	40	90	180	_	V _{CE} =6.0 V, I _C =1.0 mA
Cob	Output Capacitance		1.9	2.2	рF	V _{CB} =6.0 V, I _E =0, f=1.0 MHz
NF	Noise Figure		2.0	4.0	dB	V_{CE} =6.0 V, I_{E} =-1.0 mA, R_{G} =500 Ω ,
						f=1.0 MHz
fΤ	Gain Bandwidth Product	150	250		MHz	V _{CE} =6.0 V, I _E =-1.0 mA
C _c ·rb′b	Collector to Base Time Constant		10	15	ps	$V_{CE}=6.0 \text{ V, } I_{E}=-10 \text{ mA, } f=31.9 \text{ MHz}$
ІСВО	Collector Cutoff Current			100	nΑ	V _{CB} =50 V, I _E =0
IEBO	Emitter Cutoff Current			100	nA	V _{EB} =5.0 V, I _C =0
V _{BE}	Base to Emitter Voltage	0.65	0.70	0.75	V	V _{CE} =6.0 V, I _C =1.0 mA
V _{CE(sat)}	Collector Saturation Voltage		0.08	0.30	٧ .	I _C =10 mA, I _B =1.0 mA

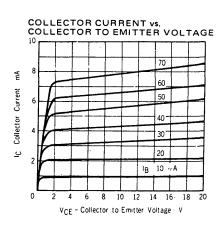
Classification of hFE

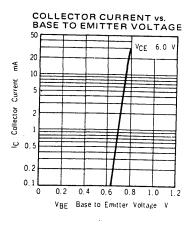
Rank	MF	LF	KF
Range	40 – 80	60 – 120	90 – 180

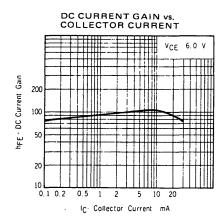
 h_{FE} Test Conditions : $V_{CE}=6.0 \text{ V, } I_{C}=1.0 \text{ mA}$

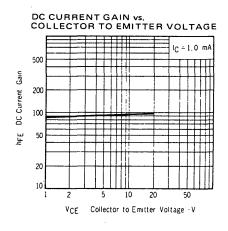
TYPICAL CHARACTERISTICS (Ta = 25 °C unless otherwise noted)











INPUT CAPACITANCE vs. EMITTER TO

