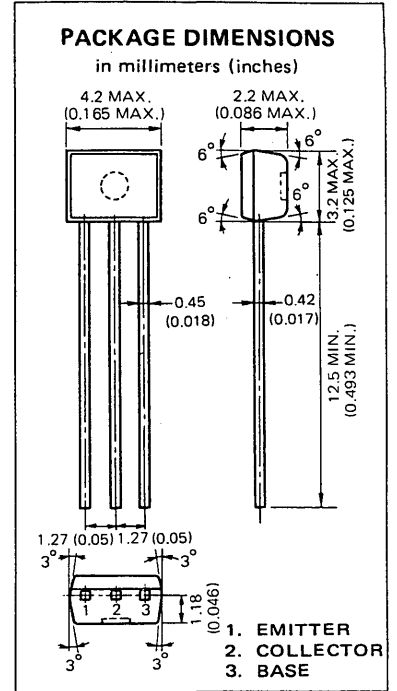


**DESCRIPTION** The 2SC2787 is designed for use in AM converter, AM/FM IF amplifier and local oscillator of AM/FM tuner.

- FEATURES**
- Small output capacitance ( $C_{ob} = 1.9$  pF TYP.)
  - Low noise figure (NF = 2.0 dB TYP. @1.0 MHz)

**ABSOLUTE MAXIMUM RATINGS**

Maximum Temperatures	
Storage Temperature	-55 to +150 °C
Junction Temperature	+150 °C Maximum
Maximum Power Dissipation ( $T_a = 25$ °C)	
Total Power Dissipation	250 mW
Maximum Voltages and Currents ( $T_a = 25$ °C)	
$V_{CBO}$ Collector to Base Voltage	50 V
$V_{CEO}$ Collector to Emitter Voltage	30 V
$V_{EBO}$ Emitter to Base Voltage	5.0 V
$I_C$ Collector Current	30 mA
$I_B$ Base Current	30 mA



**ELECTRICAL CHARACTERISTICS ( $T_a = 25$  °C)**

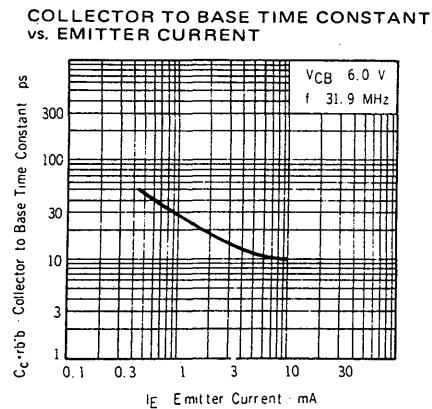
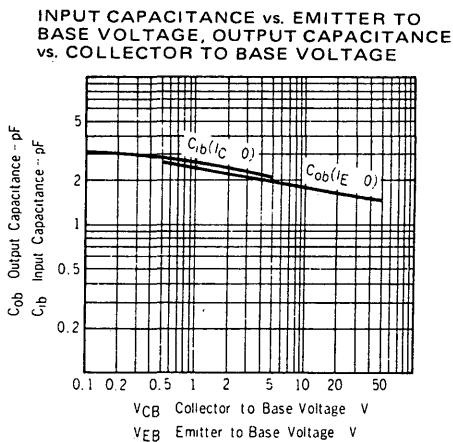
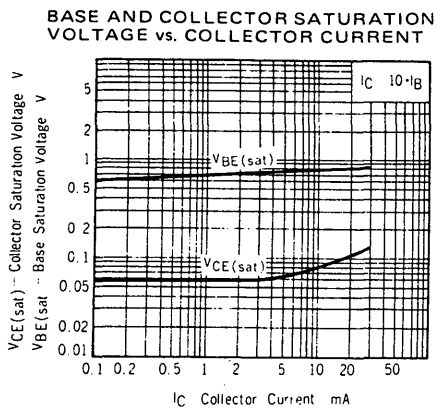
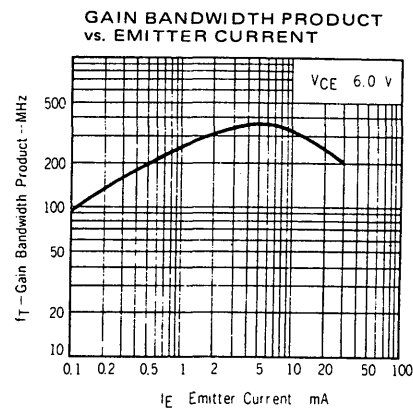
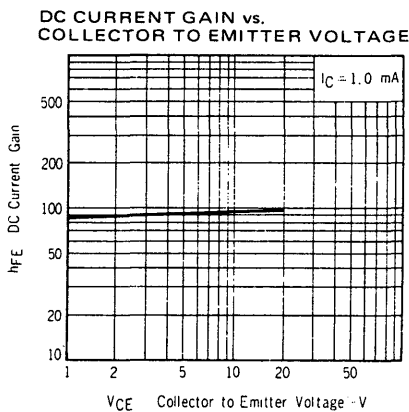
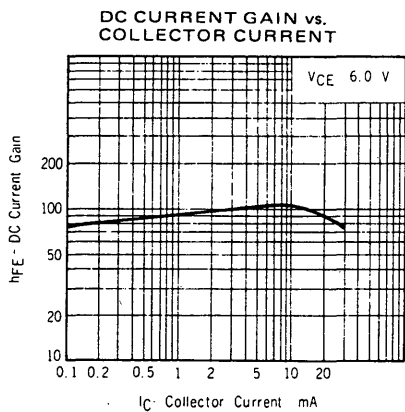
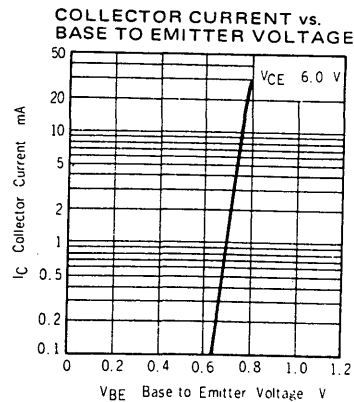
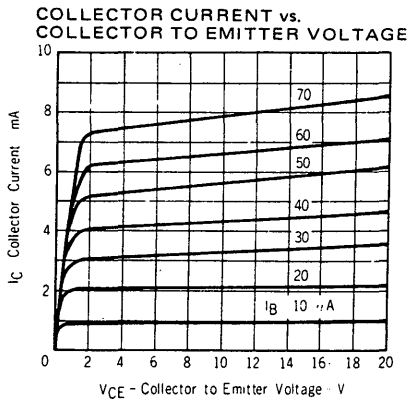
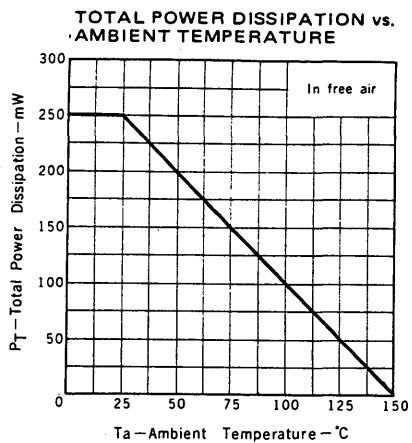
SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
$h_{FE}$	DC Current Gain	40	90	180	-	$V_{CE}=6.0$ V, $I_C=1.0$ mA
$C_{ob}$	Output Capacitance		1.9	2.2	pF	$V_{CB}=6.0$ V, $I_E=0$ , $f=1.0$ MHz
NF	Noise Figure		2.0	4.0	dB	$V_{CE}=6.0$ V, $I_E=-1.0$ mA, $R_G=500$ $\Omega$ , $f=1.0$ MHz
$f_T$	Gain 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	$V_{CE}=6.0$ V, $I_E=-10$ mA, $f=31.9$ MHz
$I_{CBO}$	Collector Cutoff Current			100	nA	$V_{CB}=50$ V, $I_E=0$
$I_{EBO}$	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	V	$I_C=10$ mA, $I_B=1.0$ mA

**Classification of  $h_{FE}$**

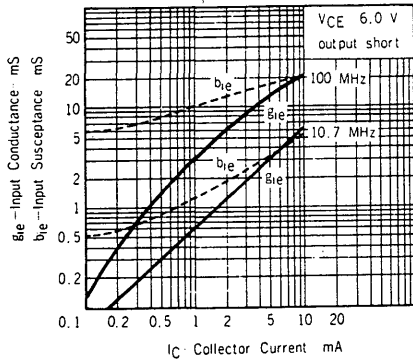
Rank	MF	LF	KF
Range	40 - 80	60 - 120	90 - 180

$h_{FE}$  Test Conditions :  $V_{CE}=6.0$  V,  $I_C=1.0$  mA

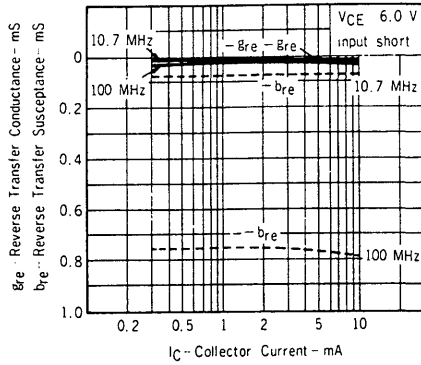
TYPICAL CHARACTERISTICS (Ta = 25 °C unless otherwise noted)



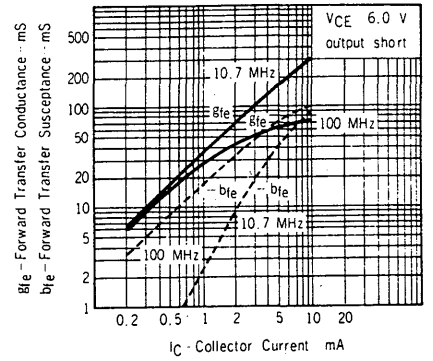
INPUT ADMITTANCE vs. COLLECTOR CURRENT



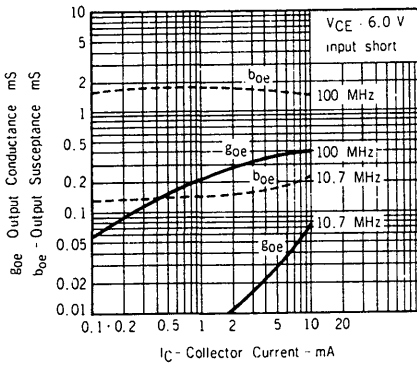
REVERSE TRANSFER ADMITTANCE vs. COLLECTOR CURRENT



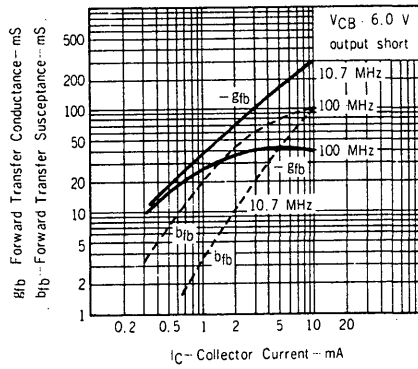
FORWARD TRANSFER ADMITTANCE vs. COLLECTOR CURRENT



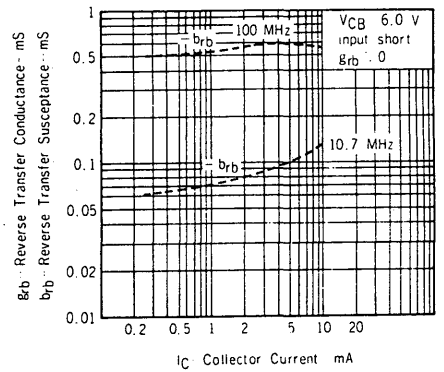
OUTPUT ADMITTANCE vs. COLLECTOR CURRENT



FORWARD TRANSFER ADMITTANCE vs. COLLECTOR CURRENT



REVERSE TRANSFER ADMITTANCE vs. COLLECTOR CURRENT



INPUT ADMITTANCE vs. COLLECTOR CURRENT

