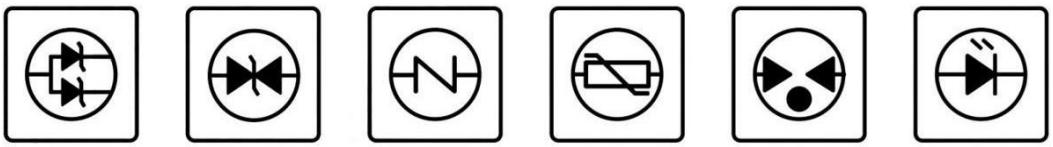
MSKSEMI 美森科
SEMICONDUCTOR



2SC4226

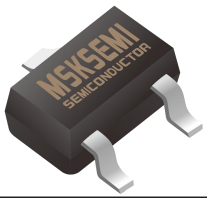
Product specification

2SC4226

Features

- CollectorCurrentCapabilityIC=100mA
- CollectorEmitterVoltageVCEO=12V

SOT-323



Classification of hfe

Type	2SC4226 R23-MS	2SC4226 R24-MS	2SC4226 R25-MS
Range	40-80	70-140	125-250
Marking	R23	R24	R25

AbsoluteMaximumRatingsTa=25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	20	V
Collector - Emitter Voltage	V_{CEO}	12	
Emitter - Base Voltage	V_{EBO}	3	
Collector Current - Continuous	I_C	100	mA
Collector Power Dissipation	P_C	150	mW
Junction Temperature	T_J	150	℃
Storage Temperature Range	T_{stg}	-65 to 150	

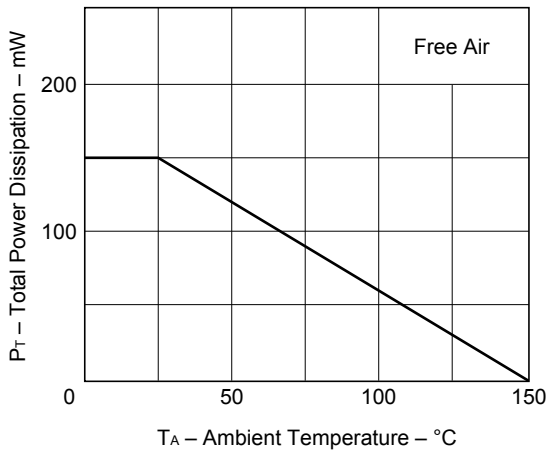
ElectricalCharacteristicsTa=25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= 100 μA， I_E= 0	20			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= 1 mA， I_B= 0	12			
Emitter - base breakdown voltage	V_{EBO}	I_E= 100 μA， I_C= 0	3			
Collector-base cut-off current	I_{CBO}	V_{CB}= 10 V , I_E= 0			1	uA
Emitter cut-off current	I_{EBO}	V_{EB}= 1V , I_C=0			1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=100 mA, I_B=10mA			0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=100 mA, I_B=10mA			1.2	
DC current gain	h_{FE}	V_{CE}= 3V, I_C= 7mA	40		250	
Insertion Power Gain	$\|S_{21e}\|^2$	V_{CE}= 3V, I_C= 7mA,f=1GHz	7			dB
Noise Figure	NF	V_{CE}= 3V, I_C= 7mA,f=1GHz			2.5	
Feedback Capacitance	C_{re}	V_{CE}= 3V, I_E=0,f=1MHz			1.5	pF
Transition frequency	f_T	V_{CE}= 3V, I_C= 7mA	4.5			GHz

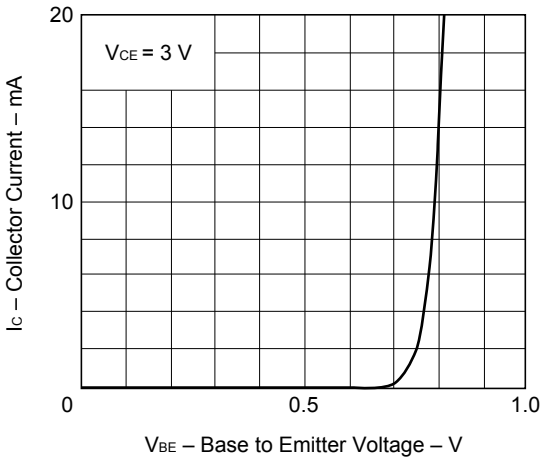
Note.PulseMeasurement;PW≤350us,DutyCycle≤2%Pulsed.

Typical Characterisitics

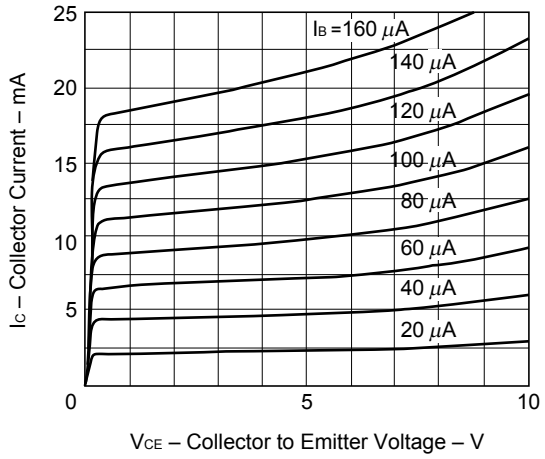
TOTAL POWER DISSIPATION vs. AMBIENT TEMPERATURE



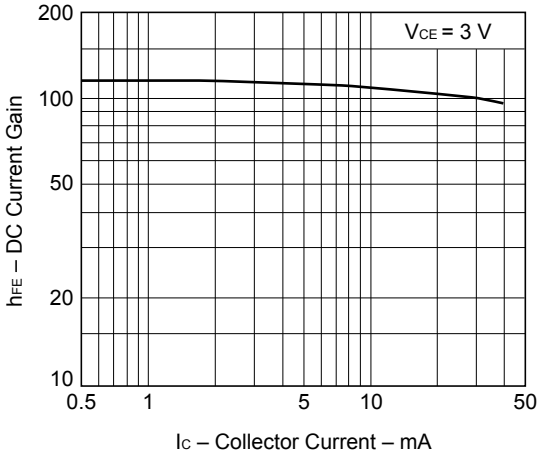
COLLECTOR CURRENT vs. BASE TO EMITTER VOLTAGE



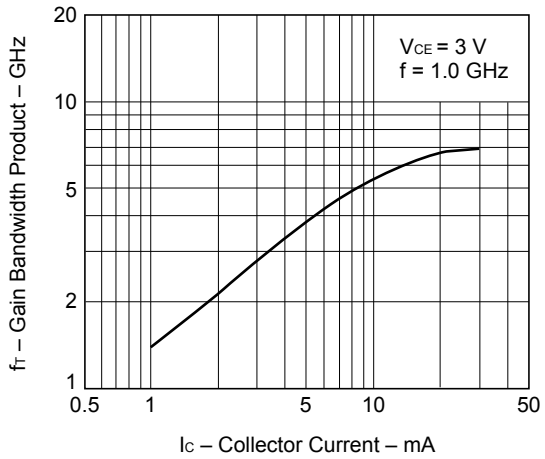
COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE



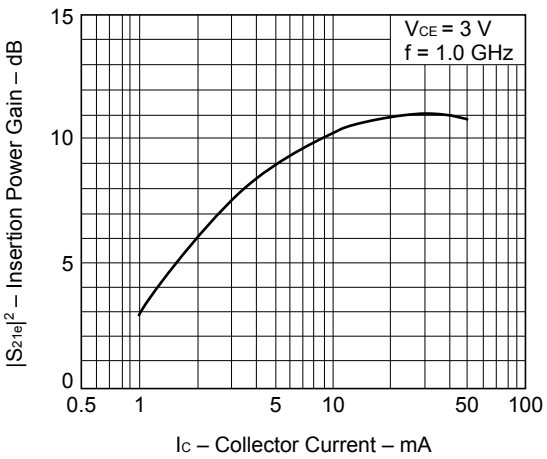
DC CURRENT GAIN vs. COLLECTOR CURRENT



GAIN BANDWIDTH PRODUCT vs. COLLECTOR CURRENT

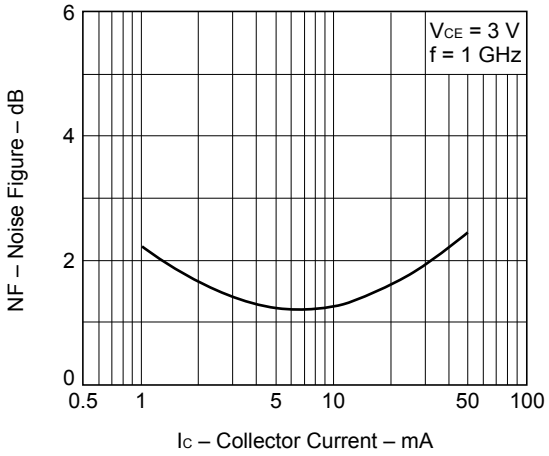


INSERTION POWER GAIN vs. COLLECTOR CURRENT

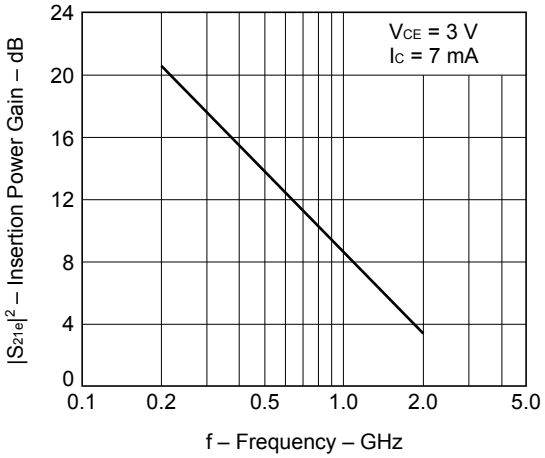


Typical Characterisitics

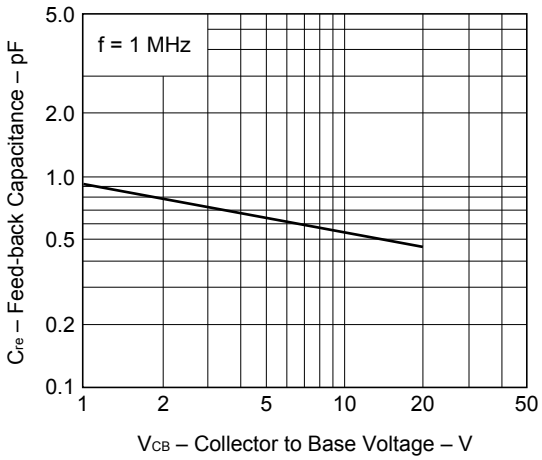
NOISE FIGURE vs.
COLLECTOR CURRENT



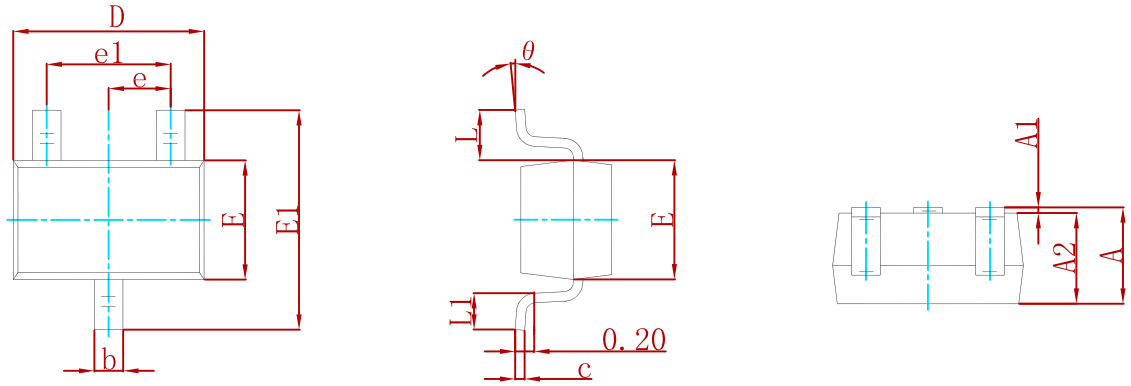
INSERTION POWER GAIN vs. FREQUENCY



FEED-BACK CAPACITANCE vs.
COLLECTOR TO BASE VOLTAGE

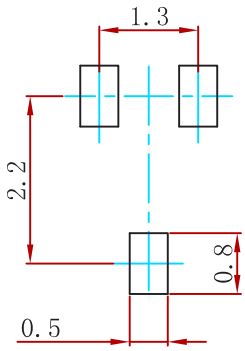


PACKAGEMECHANICALDATA



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.05mm.
3.The pad layout is for reference purposes only.

REELSPECIFICATION

P/N	PKG	QTY
2SC4226	SOT-323	3000

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