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Manufacturers of World Class Discrete Semiconductors

2N4427

NPN SILICON RF TRANSISTOR

JEDEC TO-39 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N4427 type is a Silicon NPN Epitaxial Planar RF Transistor mounted in a hermetically sealed package designed for high frequency amplifier applications.

MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

	SYMBOL		UNIT
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	20	V
Emitter-Base Voltage	V_{EBO}	2.0	V
Collector Current	I_C	400	mA
Base Current	I_B	400	mA
Power Dissipation	P_D	1.0	W
Power Dissipation (T_C=25°C)	P_D	3.5	W
Operating and Storage Junction Temperature	T_J,T_{stg}	-65 to +200	°C

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
I_{CEO}	V_{CE}=12V		20	μA
I_{EBO}	V_{EB}=2.0V		100	μA
I_{CEV}	V_{CE}=Rated V_{CBO}, V_{BE}=1.5V		100	μA
I_{CEV}	V_{CE}=12V, V_{BE}=1.5V, T_C=150°C		5.0	mA
BV_{CER}	I_C=5.0mA, R_{BE}=10Ω	40		V
BV_{CEO}	I_C=5.0mA	20		V
V_{CE}(SAT)	I_C=100mA, I_B=20mA		0.5	V
h_{FE}	V_{CE}=5.0V, I_C=100mA	10	200	
h_{FE}	V_{CE}=5.0V, I_C=360mA	5.0		
f_T	V_{CE}=15V, I_C=50mA, f=200MHz	500		MHz
C_{ob}	V_{CB}=12V, I_E=0, f=1.0MHz		4.0	pF
G_{pe}	V_{CC}=12V, P_{IN}=100mW, f=175MHz	10		dB
η	V_{CC}=12V, P_{OUT}=1.0W, f=175MHz	50		%
P_{IN}	V_{CC}=12V, P_{OUT}=1.0W, f=175MHz		100	mW