KOREA ELECTRONICS CO.,LTD.

SEMICONDUCTOR TECHNICAL DATA

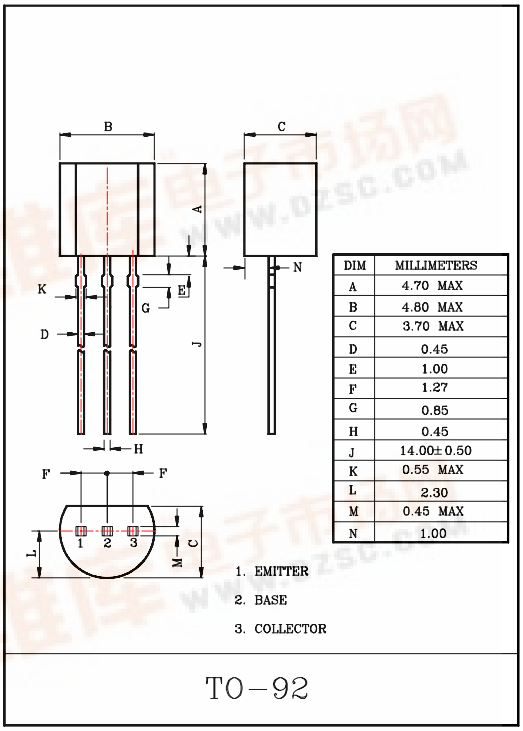
KTC9018

EPITAXIAL PLANAR NPN TRANSISTOR

HIGH FREQUENCY LOW NOISE AMPLIFIER APPLICATION.
VHF BAND AMPLIFIER APPLICATION.

FEATURES

- Small Reverse Transfer Capacitance
  : C_{re}=0.65pF(Typ.).
- Low Noise Figure : NF=2.2dB(Typ.) at f=100MHz.
- High Transition Frequency : f_T=800MHz(Typ.).



DIM	MILLIMETERS
A	4.70 MAX
B	4.80 MAX
C	3.70 MAX
D	0.45
E	1.00
F	1.27
G	0.85
H	0.45
J	14.00±0.50
K	0.55 MAX
L	2.30
M	0.45 MAX
N	1.00

TO-92

MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Base Voltage	V_{EBO}	4	V
Collector Current	I_C	20	mA
Emitter Current	I_E	-20	mA
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55~150	℃

ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=40V, I_E=0	-	-	0.1	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}=4V, I_C=0	-	-	0.1	μA
DC Current Gain	h_{FE} (Note)	V_{CE}=5V, I_C=1mA	40	-	198	
Reverse Transfer Capacitance	C_{re}	V_{CE}=6V, f=1MHz	-	-	1.0	pF
Transition Frequency	f_T	V_{CE}=10V, I_E=-8mA, f=100MHz	500	800	-	MHz
Collector-Base Time Constant	C_C·rbb′	V_{CE}=6V, I_E=-1mA, f=30MHz	-	-	30	pS
Noise Figure	NF	V_{CE}=6V, I_E=-1mA, f=100MHz	-	-	4.0	dB
Power Gain	G_{pe}		15	-	-	

Note : h_{FE} Classification E:40~59, F:54~80, G:72~108, H:97~146, I:130~198