



# 3DK7



## NPN Silicon High Frequency Low Power Switch Transistor

### Features:

1. Using epitaxy planar technology structure. High working frequency. Metallic packaging.
2. Small volume, light weight, easy installation.
3. Use for high frequency oscillation, high frequency small signal amplification, low power source adjustment circuit.
4. Quality Class: GS, G. Implementation of standards: QZJ840611

### TECHNICAL DATA:

(Ta = 25°C)

Parameter name	Symbols	Unit	Specifications						Test Condition
			A	B	C	D	E	F	
Total Dissipation	P <sub>tot</sub>	mW	300						Ta=25°C
Max. Collector Current	I <sub>CM</sub>	mA	50						
Junction Temperature	T <sub>jm</sub>	°C	175						
Storage Temperature	T <sub>stg</sub>	°C	-55~+175						
C-B Breakdown Voltage	V <sub>(BR)CBO</sub>	V	20	40	60	20	40	60	I <sub>c</sub> =0.1mA
C-E Breakdown Voltage	V <sub>(BR)CEO</sub>	V	15	30	45	15	30	45	
E-B Breakdown Voltage	V <sub>(BR)EBO</sub>	V	4						I <sub>E</sub> =0.1mA
Collector- Emitter Saturation Voltage Drop	V <sub>CE(sat)</sub>	V	0.3						I <sub>c</sub> =10mA I <sub>B</sub> =1mA
Base- Emitter Saturation Voltage Drop	V <sub>BE(sat)</sub>	V	0.9						
C-E Leakage Current	I <sub>CEO</sub>	uA	0.1						V <sub>CE</sub> =10V
DC Current Gain	h <sub>FE</sub>		Orange: 25~40, Yellow: 40~55, Green: 55~80 Blue: 80~120, Purple: 120~180						V <sub>CE</sub> =1V, I <sub>c</sub> =10mA
Transition frequency	f <sub>T</sub>	MHz	200						V <sub>CE</sub> =6V, I <sub>c</sub> =10mA f=100MHz
Turn-on Time	t <sub>on</sub>	ns	40						I <sub>c</sub> =10mA I <sub>B1</sub> = I <sub>B2</sub> =1mA
Storage Time	t <sub>s</sub>	ns	80			30			
Fall Time	t <sub>f</sub>	ns	20						

### Outline and Dimensions: