

**3DK104, 3DK105****NPN Silicon High Frequency Moddle 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 and high frequency switch, 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							
			3DK104				3DK105			
			A	B	C	D	A	B	C	D
Total Dissipation	$P_{tot}$	mW	700 (Ta=25°C)				700 (Ta=25°C)			
Max. Collector Current	$I_{CM}$	mA	400				500			
Junction Temperature	$T_{jm}$	°C	175							
Storage Temperature	$T_{stg}$	°C	-55~+175							
C-B Breakdown Voltage	$V_{(BR)CBO}$	V	75	100	75	100	40	60	40	60
			Ic=0.1mA							
C-E Breakdown Voltage	$V_{(BR)CEO}$	V	60	80	60	80	30	45	30	45
			Ic=0.1mA							
E-B Breakdown Voltage	$V_{(BR)EBO}$	V	≥4 (I <sub>E</sub> =0.1 mA)							
Collector- Emitter Saturation Voltage Drop	$V_{CE(sat)}$	V	0.5 (I <sub>C</sub> =300mA, I <sub>B</sub> =30mA)				0.5 (I <sub>C</sub> =500mA, I <sub>B</sub> =50mA)			
Base- Emitter Saturation Voltage Drop	$V_{BE(sat)}$	V	1.0 (I <sub>C</sub> =300mA, I <sub>B</sub> =30mA)				1.2 (I <sub>C</sub> =500mA, I <sub>B</sub> =50mA)			
C-E Leakage Current	$I_{CEO}$	uA	1.0 (V <sub>CE</sub> =30V)				1.0 (V <sub>CE</sub> =20V)			
DC Current Gain	$h_{FE}$		Orange:25~40, Yellow:40~55, Green:55~80, Blue:80~120, Purple:120~180							
			(V <sub>CE</sub> =3V, I <sub>C</sub> =200mA)				(V <sub>CE</sub> =1V, I <sub>C</sub> =300mA)			
Transition frequency	$f_T$	MHz	150 (V <sub>CE</sub> =10V, I <sub>C</sub> =50mA, f=100MHz)				150 (V <sub>CE</sub> =10V, I <sub>C</sub> =50mA, f=100MHz)			
Turn-on Time	I <sub>C</sub> =300 mA I <sub>B1</sub> = I <sub>B2</sub> =30mA	$t_{on}$	ns	100	50	25				
Storage Time		$t_s$	ns	150	80	250	100			
Fall Time		$t_f$	ns	80	50	30				

**Outline and Dimensions:**