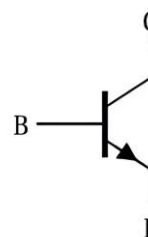
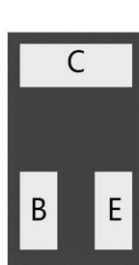


Features

- Complementary to TK3906LED03
- Single General-Purpose Switching Transistor

Application

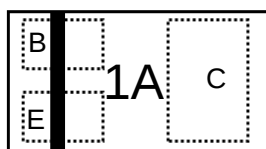
- General-Purpose Switching and Amplification



DFN1006-3L top view

Schematic diagram

1A: Device code



Marking and pin assignment



Halogen-Free

Maximum Ratings(Ta=25°C unless otherwise noted)

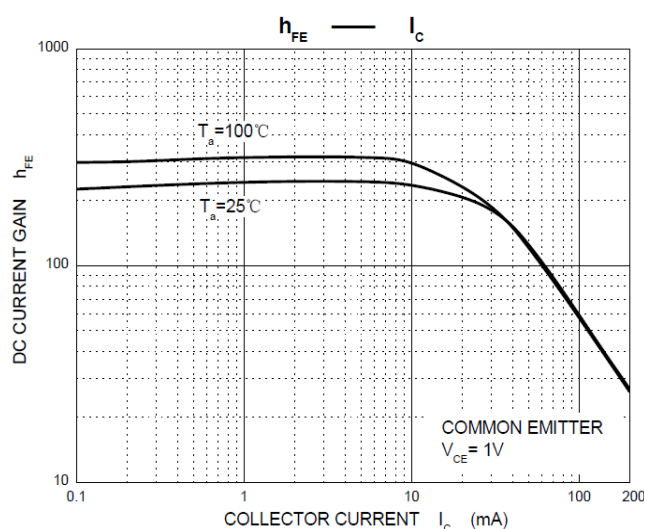
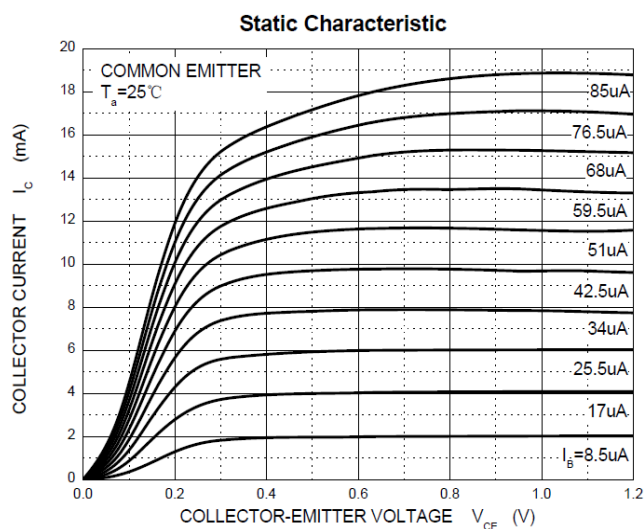
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	40	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current	200	mA
P_C	Collector Power Dissipation	100	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	1250	°C/W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	°C

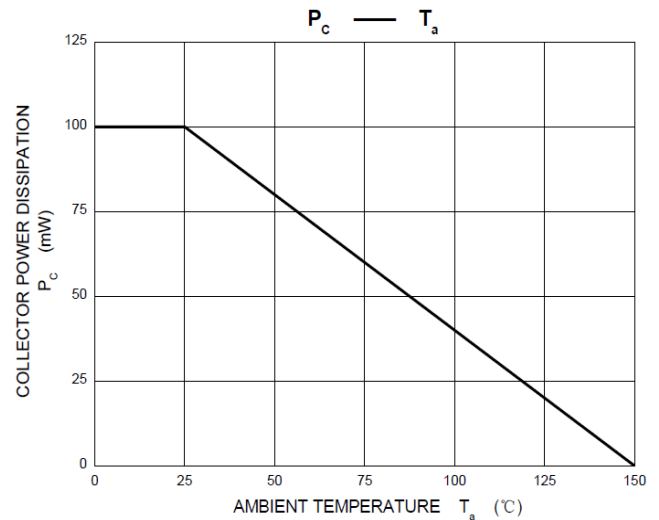
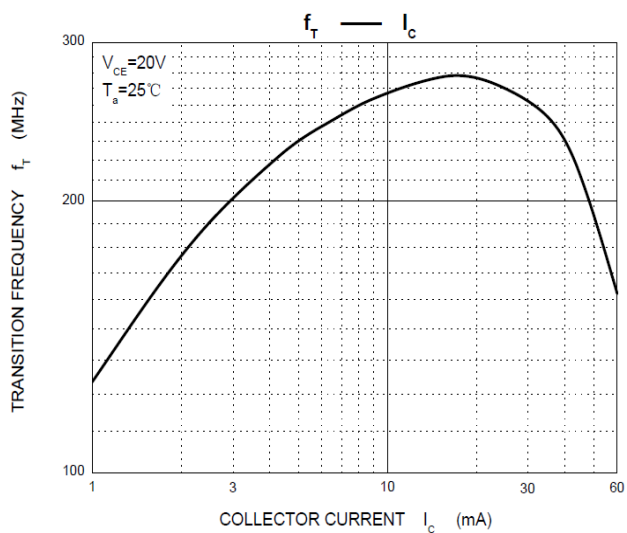
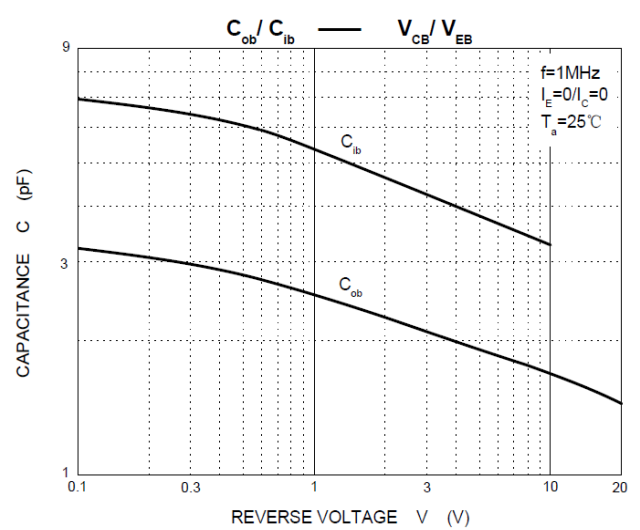
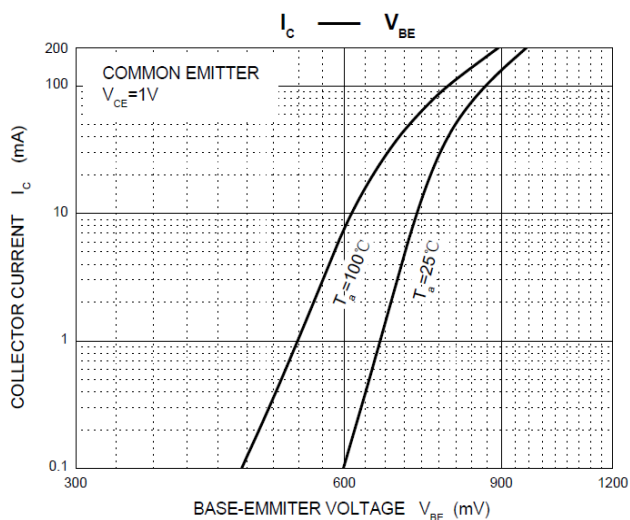
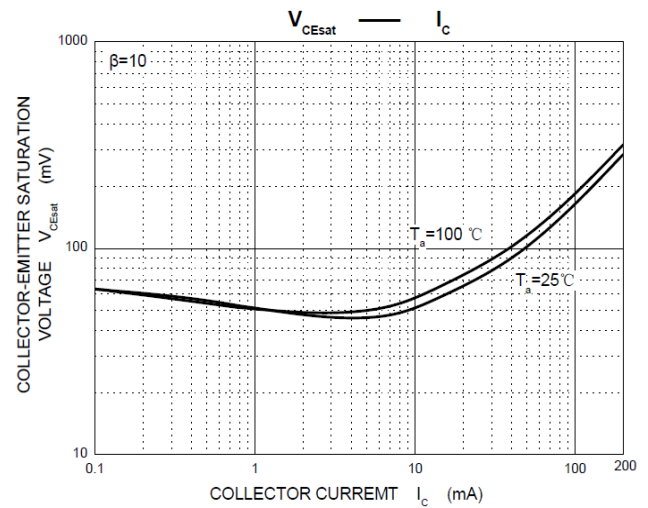
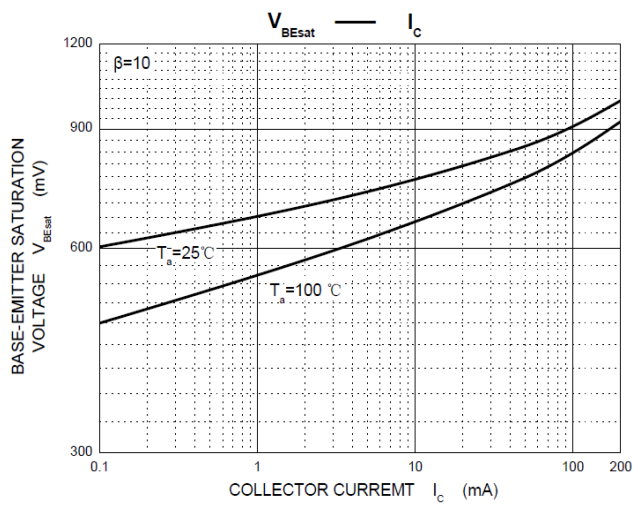
Ordering Information (Example)

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
TK3904LED03	DFN1006-3L	1A	10,000	150,000	600,000	7"reel

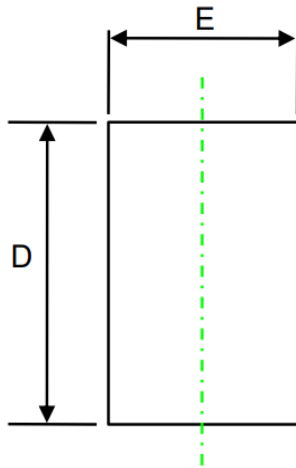
Electrical Characteristics (T_J=25°C unless otherwise noted)

Symbol	Parameter	Condition	Min	Typ	Max	Unit
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =10μA, I _E =0	60	--	--	V
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =1mA, I _B =0	40	--	--	V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =10μA, I _C =0	6	--	--	V
I _{CEX}	Collector cut-off current	V _{CB} =30V, V _{EB(off)} =3V	--	--	50	nA
I _{CBO}	Collector cut-off current	V _{CB} =60V, I _E =0	--	--	0.1	μA
I _{EBO}	Emitter cut-off current	V _{CB} =5V, I _C =0	--	--	0.1	μA
h _{FE}	DC current gain	V _{CE} =1V, I _C =10mA	100	--	300	
V _{CE(sat)}	Collector-emitter saturation voltage	I _C =50 mA, I _B =5mA	--	--	0.3	V
V _{BE(sat)}	Base-emitter saturation voltage	I _C =50 mA, I _B =5mA	--	--	0.95	V
f _T	Transition frequency	V _{CE} =20V, I _C =10mA, f=100MHz	300	--	--	MHz
t _d	Delay time	V _{CC} =3V, V _{BE(off)} =-0.5V I _C =10mA, I _{B1} =1mA	--	--	35	ns
t _r	Rise time	V _{CC} =3V, V _{BE(off)} =-0.5V I _C =10mA, I _{B1} =1mA	--	--	35	ns
t _s	Storage time	V _{CC} =3V, I _C =10mA, I _{B1} =I _{B2} =1mA	--	--	200	ns
t _f	Fall time	V _{CC} =3V, I _C =10mA, I _{B1} =I _{B2} =1mA	--	--	50	ns

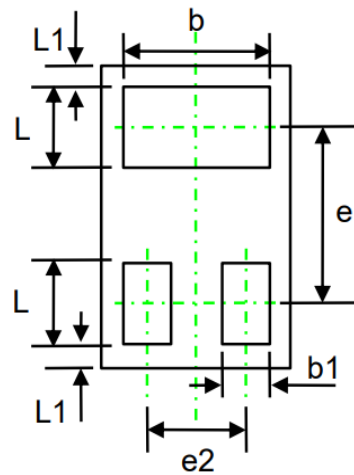
Typical Operating Characteristics




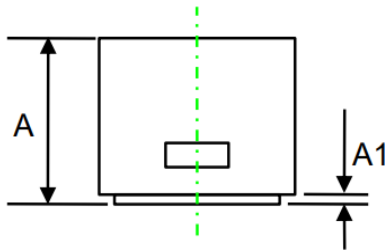
DFN1006-3L Package information



TOP VIEW



BOTTOM VIEW



SIDE VIEW

Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	0.450	0.550	0.017	0.021
A1	0.000	0.030	0.000	0.001
D	0.950	1.050	0.037	0.041
E	0.550	0.650	0.021	0.025
b	0.470	0.550	0.018	0.021
e	0.65TYP		0.025TYP	
e2	0.35TYP		0.013TYP	
L1	0.05TYP		0.001TYP	
L	0.220	0.300	0.008	0.012
b1	0.110	0.190	0.004	0.007