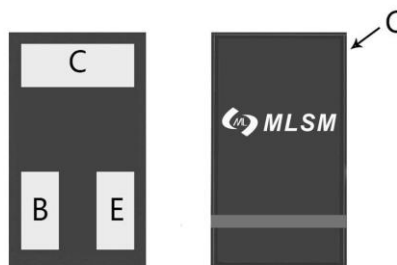
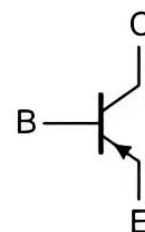


Features

- Low Current
- Low Voltage
- Ultra Small SMD Plastic Package
- Complementary to TP847LED03
- For General-purpose Switching and Amplification

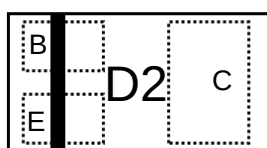


DFN1006-3L top view



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	-50	V
V_{CEO}	Collector-Emitter Voltage	-45	V
V_{EB0}	Emitter-Base Voltage	-6	V
I_C	Collector Current	-100	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

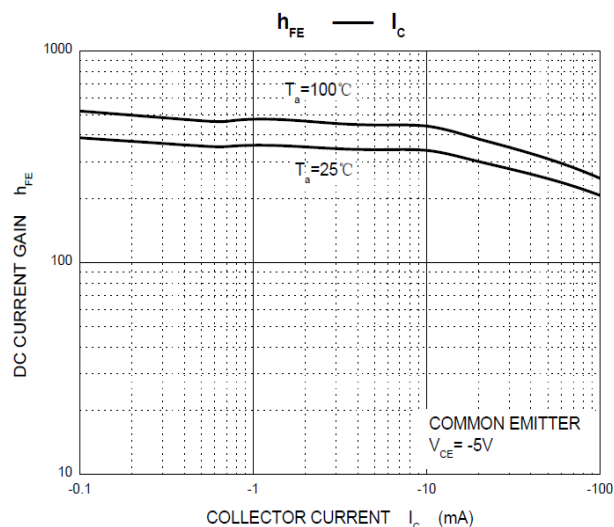
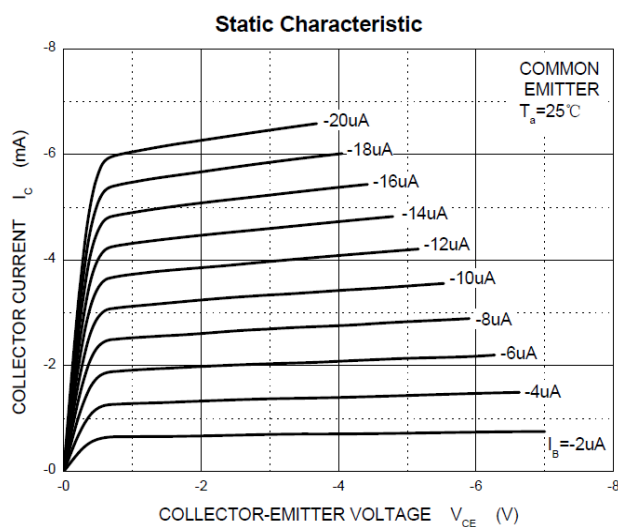
Ordering Information (Example)

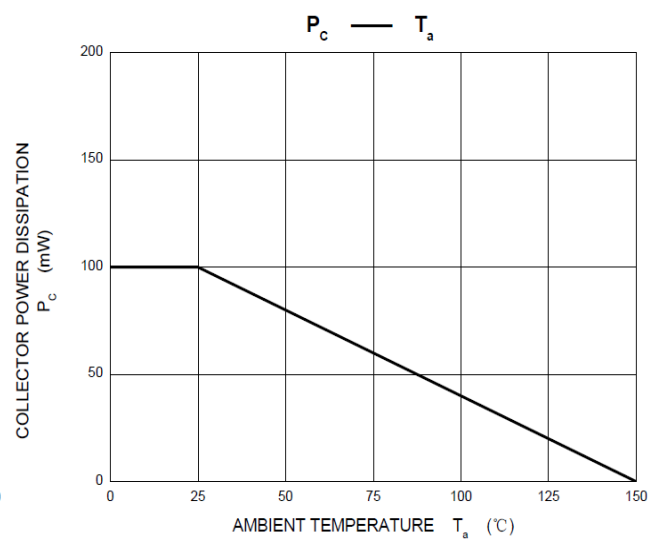
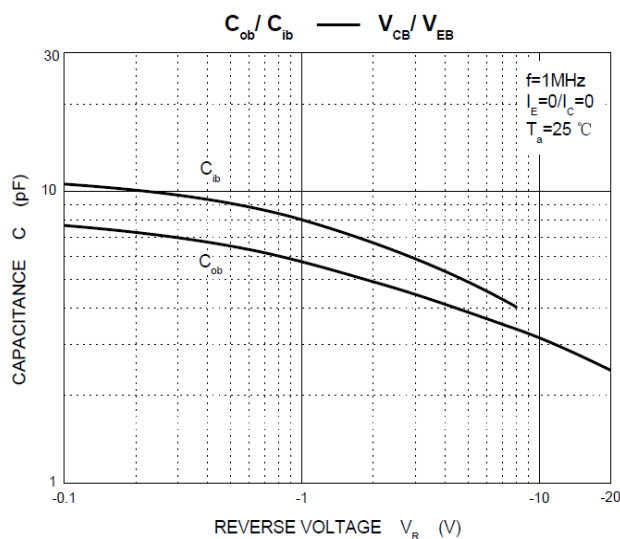
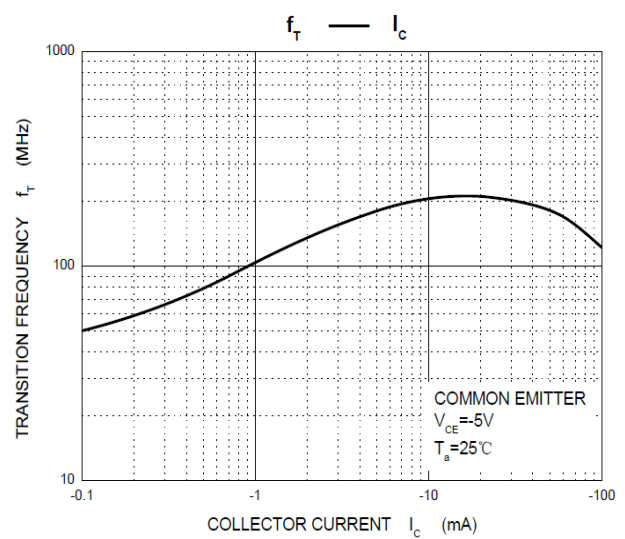
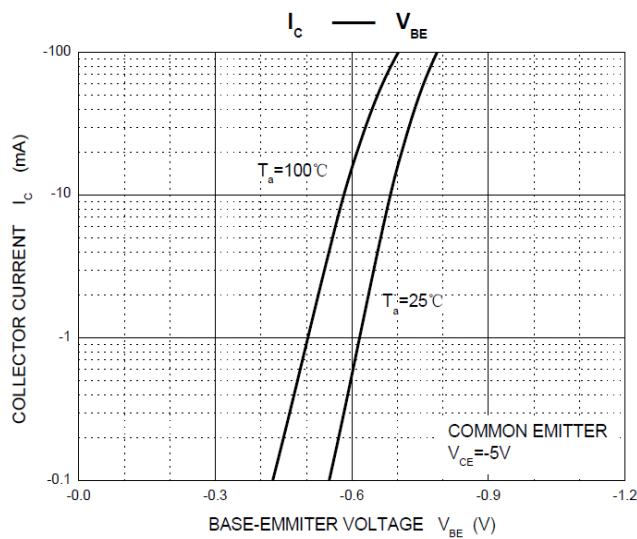
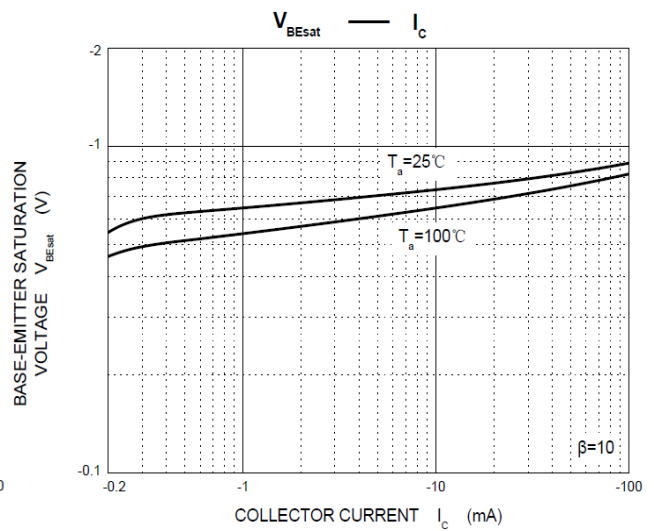
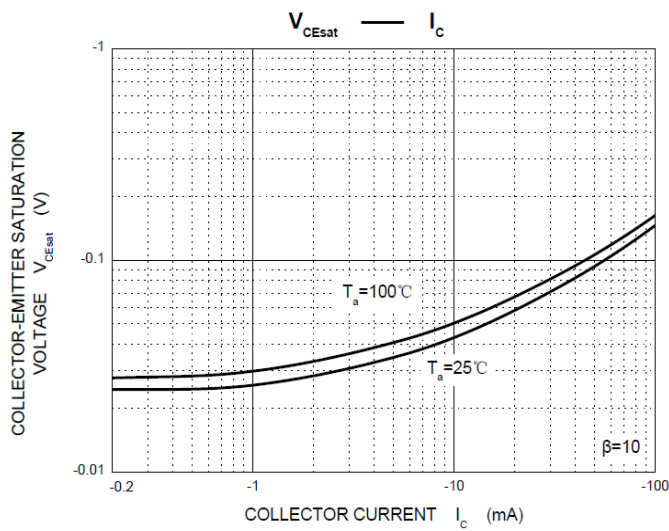
Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
TP857LED03	DFN1006-3L	D2	10,000	150,000	600,000	7"reel

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

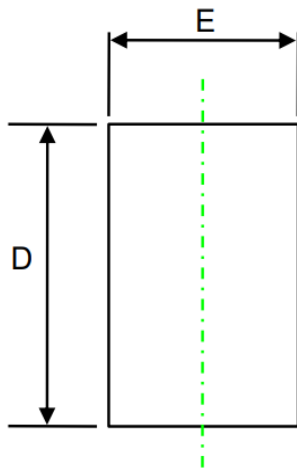
Symbol	Parameter	Condition	Min	Typ	Max	Unit
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =-10μA, I _E =0	-50	--	--	V
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =-10mA, I _B =0	-45	--	--	V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =-10μA, I _C =0	-6	--	--	V
I _{CBO}	Collector cut-off current	V _{CB} =-30V, I _E =0	--	--	-15	nA
I _{EBO}	Emitter cut-off current	V _{CB} = -5V, I _C =0	--	--	-15	nA
h _{FE} [*]	DC current gain	V _{CE} =-5V, I _C = -2mA	220	--	475	
V _{CE(sat)1} [*]	Collector-emitter saturation voltage	I _C =-10mA, I _B =-0.5mA	--	--	-0.2	V
V _{CE(sat)2} [*]		I _C =-100mA, I _B =-5mA	--	--	-0.4	V
V _{BE(sat)1} [*]	Base-emitter saturation voltage	I _C =-10 mA, I _B =-0.5mA	--	-0.7	--	V
V _{BE(sat)2} [*]		I _C =-100mA, I _B =-5mA	--	-0.9	--	V
V _{BE1} [*]	Base-emitter voltage	V _{CE} =-5V, I _C =-2mA	--	--	-0.7	V
V _{BE2} [*]		V _{CE} =-5V, I _C =-10mA	--	--	-0.77	V
f _T	Transition frequency	V _{CE} =-5V, I _C =-10mA, f=100MHz	100	--	--	MHz
C _{ob}	Collector output capacitance	V _{CB} =-10V, I _E =0, f=1MHz	--	2.5	--	pF
NF	Noise figure	V _{CE} =-5V, I _E =-0.2mA, f=1kHz, R _S =1kΩ, B=200Hz	--	10	--	dB

*Pulsetest: pulse width ≤ 300μs, duty cycle ≤ 2.0%.

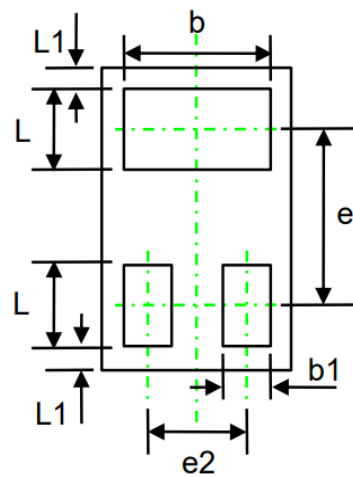
Typical Operating Characteristics




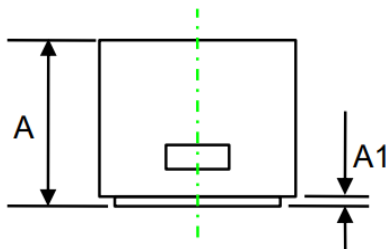
DFN1006-3L Package information



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