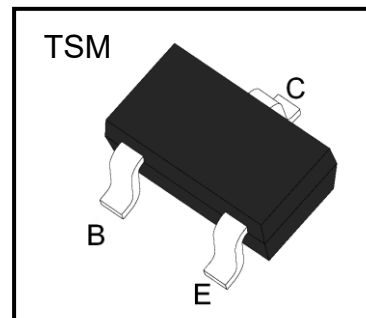


Application

- DC-DC converter
- Relay drivers, Lamp drivers
- Motor drivers, Strobes application

Features

- High current capacitance.
- Low collector-emitter saturation voltage.
- High speed Sswitching.
- High allowable power dissipation.
- Complementary to FTC3552T.



Marking: SL

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Value	Unit
Collector-base voltage	BV_{CBO}	-50	V
Collector-emitter voltage	BV_{CEO}	-50	V
Emitter-base voltage	BV_{EBO}	-6	V
Collector current DC	I_C	-3	A
Collector current pulse	I_{CP}	-6	A
Base current	I_B	-600	mA
Collector power dissipation*	P_C	0.9	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 ~ 150	°C

* Package mounted on a ceramic board (600mm²×0.8mm)

Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	BV_{CBO}	$I_C = -10\mu A, I_E = 0$	-50			V
Collector-emitter breakdown voltage	BV_{CES}	$I_C = -100\mu A, V_{BE} = 0$	-50			V
	BV_{CEO}	$I_C = -1mA, I_B = 0$	-50			V
Emitter-base breakdown voltage	BV_{EBO}	$I_E = 10\mu A, I_C = 0$	-5			V
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}	$V_{CE} = -2V, I_B = -100mA$	200		560	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -1A, I_B = -50mA$			-200	mV
		$I_C = -2A, I_B = -100mA$			-500	
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -2A, I_B = -100mA$			-1.2	V
Transition frequency	f_T	$V_{CE} = -10V, I_E = -500mA$		360		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$		24		pF
Turn on time	t_{on}	$V_{CC} = -25V, I_C = -1A$ $I_{B1} = -I_{B2} = -100mA$ $P_w = 20\mu s, \text{Duty cycle} \leq 1\%$		30		ns
Storage time	t_{stg}			230		ns
Fall time	t_f			15		ns

Typical Characteristics

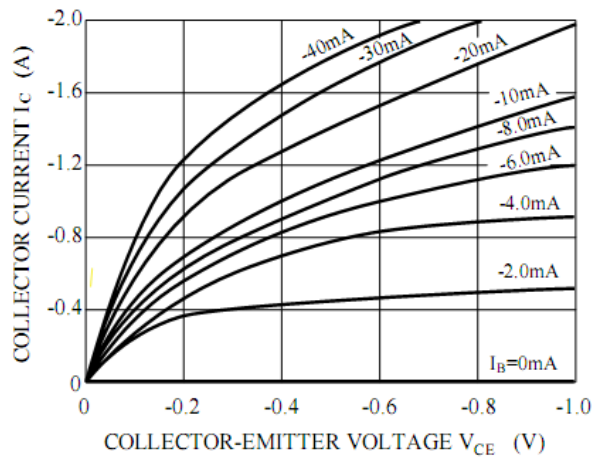


Figure 1. Static characteristics

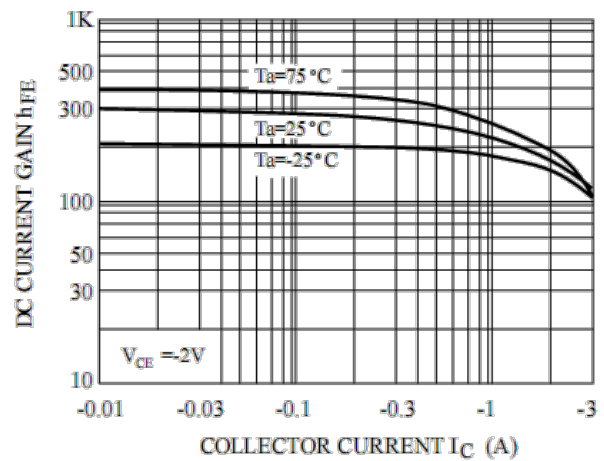


Figure 2. DC current Gain

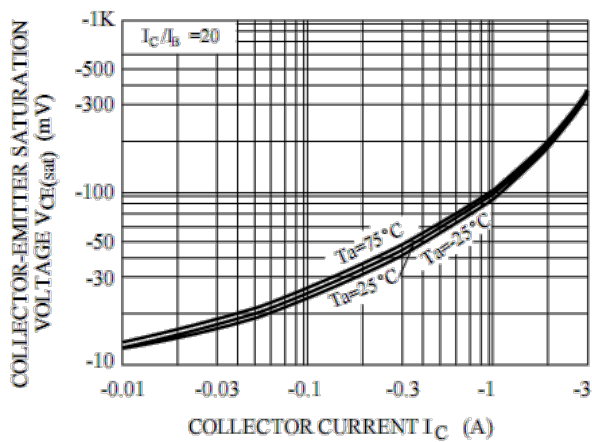


Figure 3. Collector-emitter Saturation Voltage

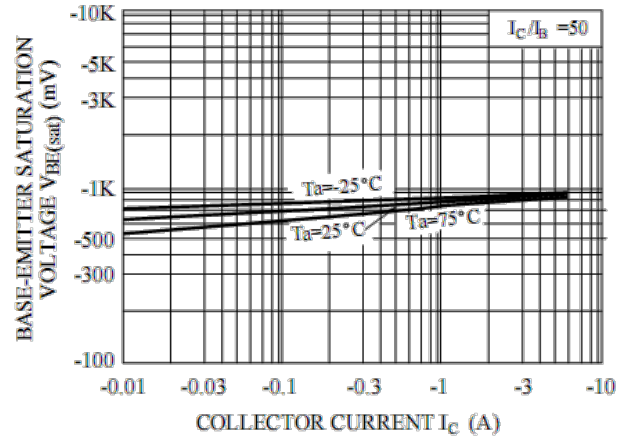


Figure 4. Base-emitter Saturation Voltage

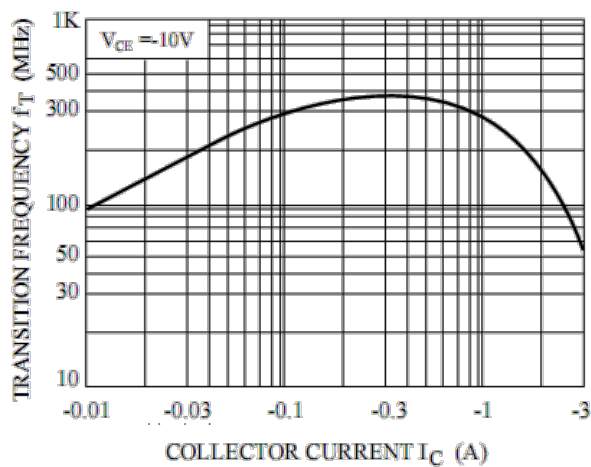


Figure 5. Transition frequency

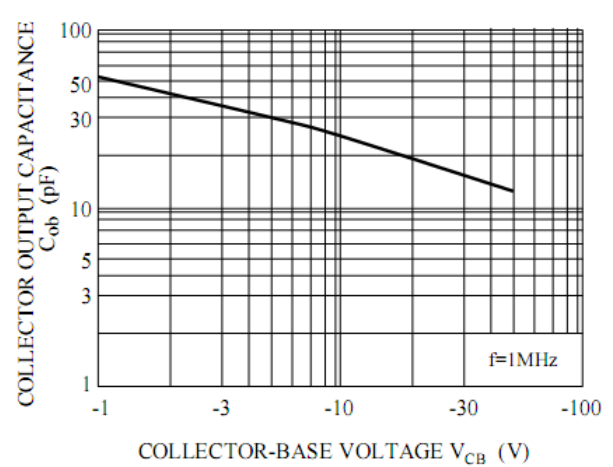


Figure 6. Capacitance characteristics

Package Dimensions

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	1.15	1.35	0.045	0.053
A1	0.00	0.10	0.000	0.004
A2	1.05	1.25	0.041	0.049
b	0.34	0.45	0.013	0.018
c	0.10	0.20	0.004	0.008
D	2.80	3.00	0.110	0.118
E	1.50	1.70	0.059	0.067
E1	2.80	3.00	0.110	0.118
e	0.90	1.00	0.035	0.039
e1	1.80	2.00	0.071	0.079
L	0.50	0.70	0.020	0.028
L1	0.30	0.60	0.012	0.024