

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ Unless otherwise noted)

PARAMETER		MIN	TYP	MAX	UNITS	TEST CONDITION
Input	Forward Voltage (V_F)		1.2	1.4	V	$I_F = 16\text{mA}$
	Reverse Current (I_R)			10	μA	$V_R = 6\text{V}$
Output	Collector-emitter Breakdown (BV_{CEO})	30			V	$I_C = 1\text{mA}$ (note 2)
	Collector-base Breakdown (BV_{CBO})	70			V	$I_C = 100\mu\text{A}$
	Emitter-collector Breakdown (BV_{ECO})	6			V	$I_E = 100\mu\text{A}$
	Collector-emitter Dark Current (I_{CEO})			50	nA	$V_{CE} = 10\text{V}$
Coupled	On-state Collector Current ($I_{C(on)}$)					
	TIL111, TIL114	20			%	$16\text{mA } I_F, 0.4\text{V } V_{CE}$
	TIL116	20			%	$10\text{mA } I_F, 10\text{V } V_{CE}$
	TIL117	50			%	$10\text{mA } I_F, 10\text{V } V_{CE}$
	Collector-emitter Saturation Voltage $V_{CE(SAT)}$					
	TIL111, TIL114			0.4	V	$16\text{mA } I_F, 2\text{mA } I_C$
	TIL116			0.4	V	$15\text{mA } I_F, 2.2\text{mA } I_C$
	TIL117			0.4	V	$10\text{mA } I_F, 0.5\text{mA } I_C$
	Input to Output Isolation Voltage V_{ISO}	5300			V_{RMS}	See note 1
		7500			V_{PK}	See note 1
	Input-output Isolation Resistance R_{ISO}	5×10^{10}			Ω	$V_{IO} = 500\text{V}$ (note 1)
	Output Rise Time, t_r		2	7	μs	$V_{CC} = 5\text{V}, I_F = 10\text{mA}$
	Output Fall Time, t_f		2	8	μs	$R_L = 75\Omega$ fig 1

Note 1 Measured with input leads shorted together and output leads shorted together.

Note 2 Special Selections are available on request. Please consult the factory.

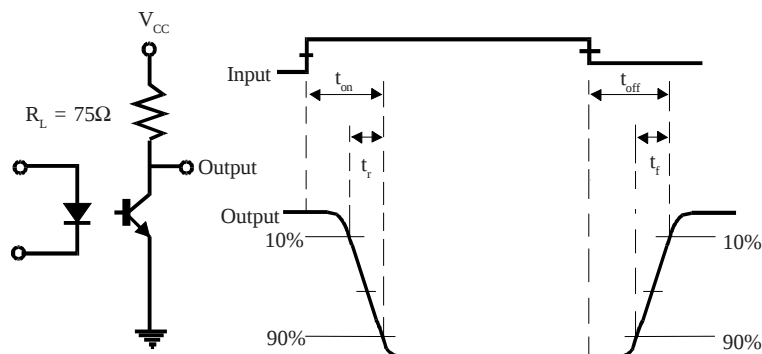
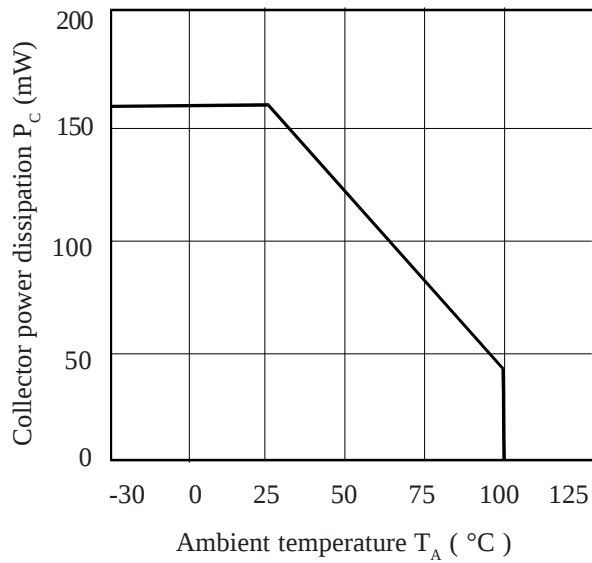
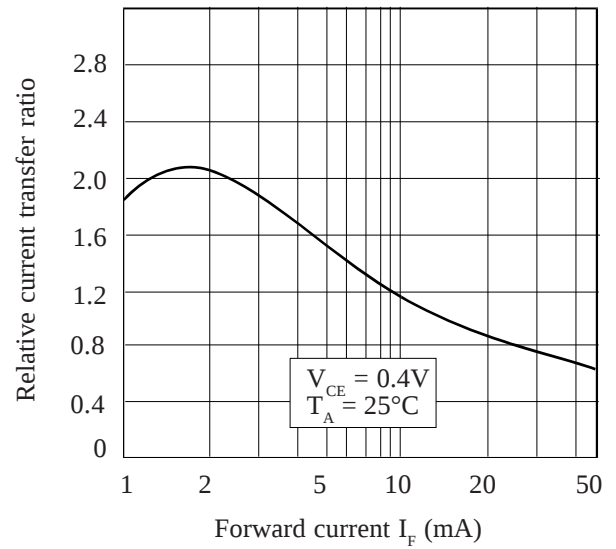


FIG 1

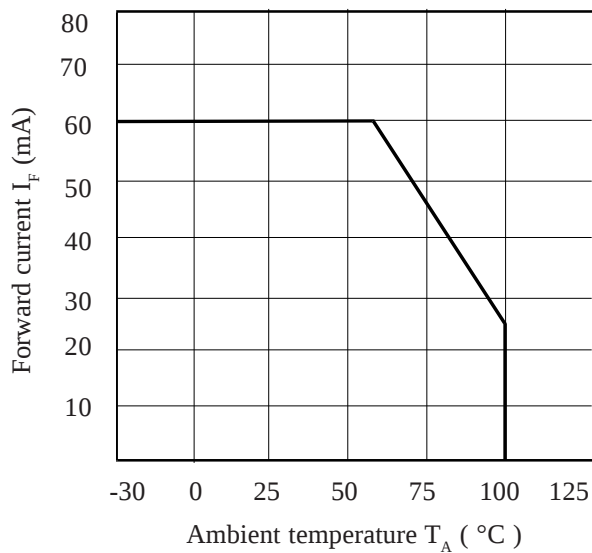
Collector Power Dissipation vs. Ambient Temperature



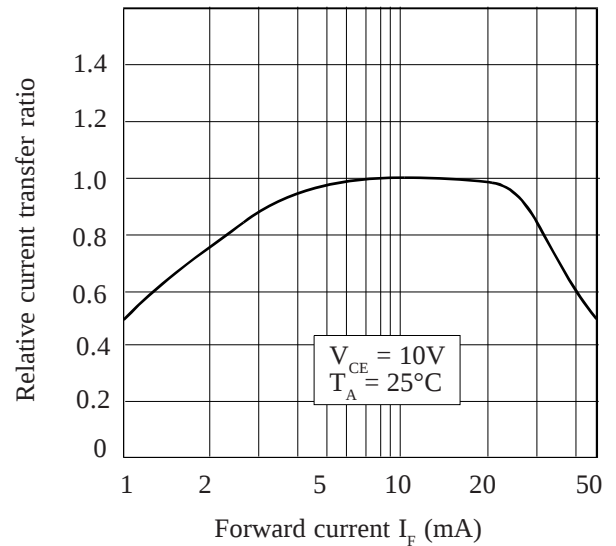
Relative Current Transfer Ratio vs. Forward Current (TIL111, TIL114)



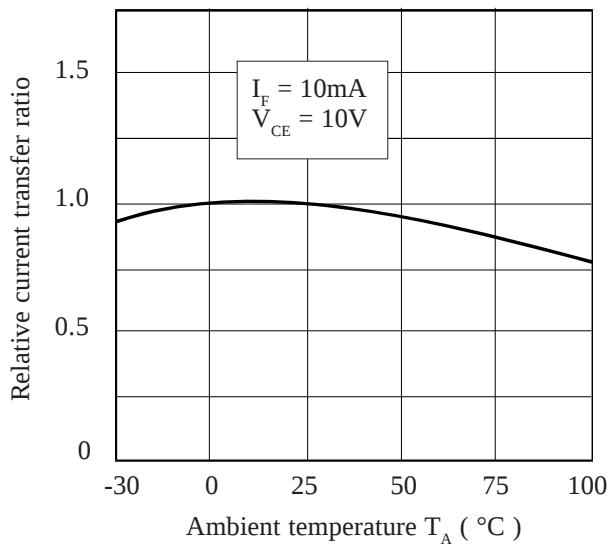
Forward Current vs. Ambient Temperature



Relative Current Transfer Ratio vs. Forward Current (TIL116, TIL117)



Relative Current Transfer Ratio vs. Ambient Temperature (TIL116, TIL117)



Relative Current Transfer Ratio vs. Ambient Temperature (TIL111, TIL114)

