

ABSOLUTE MAXIMUM RATINGS
(25°C unless otherwise specified)

Storage Temperature _____ -55°C to + 125°C
 Operating Temperature _____ -55°C to + 100°C
 Lead Soldering Temperature
 (1/16 inch (1.6mm) from case for 10 secs) 260°C

INPUT DIODE

Forward Current _____ 50mA
 Reverse Voltage _____ 6V
 Power Dissipation _____ 70mW

OUTPUT TRANSISTOR

Collector-emitter Voltage BV_{CEO} _____ 35V
 Emitter-collector Voltage BV_{ECO} _____ 6V
 Power Dissipation _____ 150mW

POWER DISSIPATION

Total Power Dissipation _____ 200mW
 (derate linearly 2.67mW/°C above 25°C)

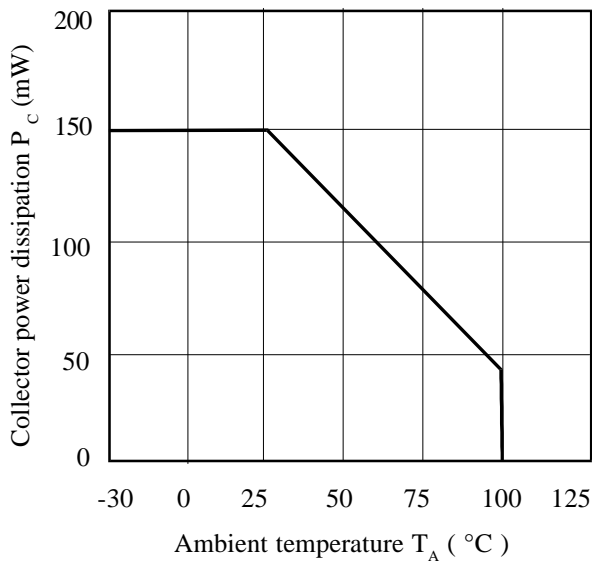
ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ Unless otherwise noted)

PARAMETER		MIN	TYP	MAX	UNITS	TEST CONDITION
Input	Forward Voltage (V_F)		1.2	1.4	V	$I_F = 20\text{mA}$ $I_R = 10\mu\text{A}$ $V_R = 5\text{V}$
	Reverse Voltage (V_R)	5			V	
	Reverse Current (I_R)			10	μA	
Output	Collector-emitter Breakdown (BV_{CEO}) (Note 2)	35			V	$I_C = 0.5\text{mA}$ $I_E = 100\mu\text{A}$ $V_{CE} = 10\text{V}$
	Emitter-collector Breakdown (BV_{ECO})	6			V	
	Collector-emitter Dark Current (I_{CEO})			100	nA	
Coupled	Current Transfer Ratio (CTR) (Note 2) TIL197, TIL198, TIL199 TIL197A, TIL198A, TIL199A TIL197B, TIL198B, TIL199B	500 1000 1500		7500 7500 7500		$2\text{mA } I_F, 1\text{V } V_{CE}$ $2\text{mA } I_F, 1\text{V } V_{CE}$ $2\text{mA } I_F, 1\text{V } V_{CE}$ $2\text{mA } I_F, 10\text{mA } I_C$ See note 1 See note 1 $V_{IO} = 500\text{V}$ (note 1) $V_{CC} = 10\text{V},$ $I_C = 10\text{mA}, R_L = 100\Omega$
	Collector-emitter Saturation Voltage $V_{CE(SAT)}$		0.8	1.0	V	
	Input to Output Isolation Voltage V_{ISO}	5300 7500			V_{RMS} V_{PK}	
	Input-output Isolation Resistance R_{ISO}	5×10^{10}			Ω	
	Output Rise Time tr		100		μs	
	Output Fall Time tf		100		μs	

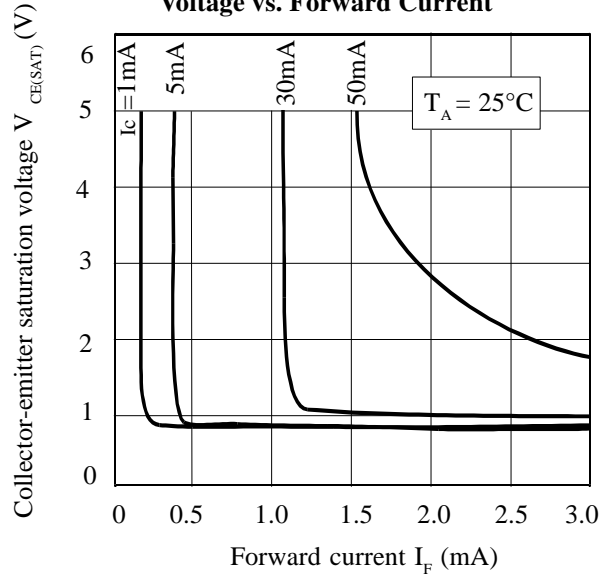
Note 1 Measured with input leads shorted together and output leads shorted together.

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

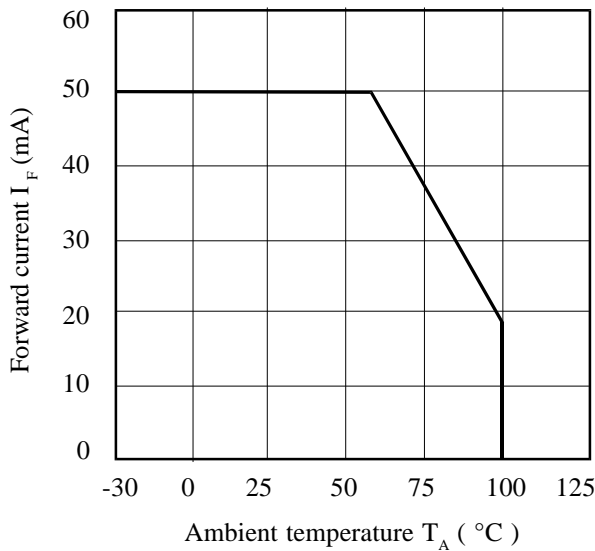
Collector Power Dissipation vs. Ambient Temperature



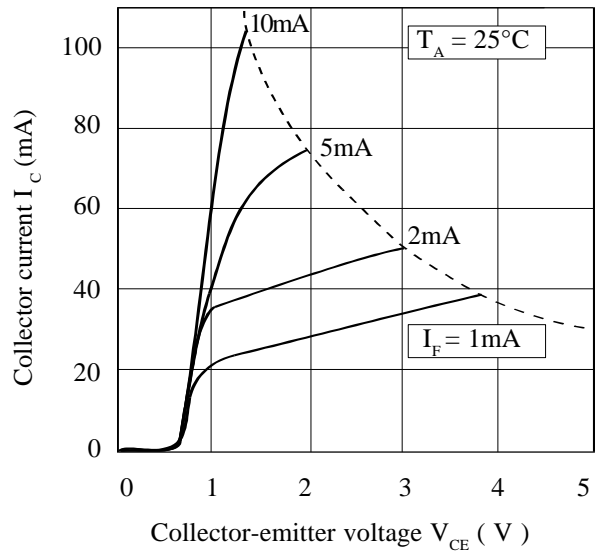
Collector-emitter Saturation Voltage vs. Forward Current



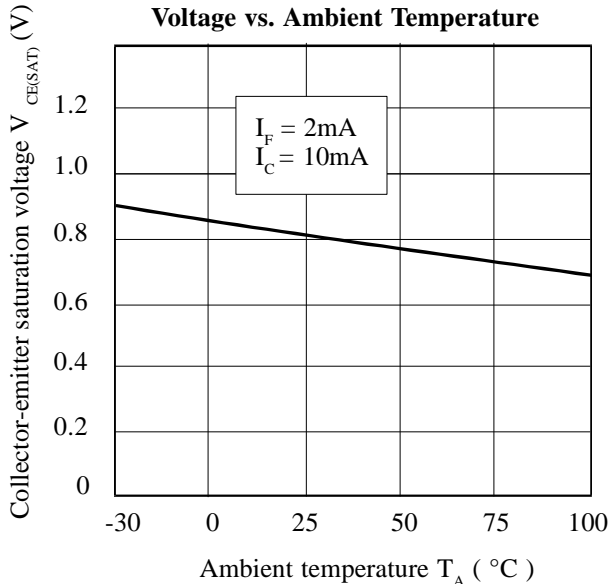
Forward Current vs. Ambient Temperature



Collector Current vs. Collector-emitter Voltage



Collector-emitter Saturation Voltage vs. Ambient Temperature



Relative Current Transfer Ratio vs. Ambient Temperature

