

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	1.5	V	$I_F = 20\text{mA}$
	Reverse Voltage (V_R)	3			V	$I_R = 10\mu\text{A}$
	Reverse Current (I_R)			10	μA	$V_R = 3\text{V}$
Output	Collector-emitter Breakdown (BV_{CEO})				V	$I_C = 1\text{mA}$
	MCT27x (except MCT275)	30			V	
	MCT275 (note 2)	80			V	
	Collector-base Breakdown (BV_{CBO})	70			V	$I_C = 100\mu\text{A}$
	Emitter-base Breakdown (BV_{EBO})	5			V	$I_E = 100\mu\text{A}$
	Collector-emitter Dark Current (I_{CEO})			50	nA	$V_{CE} = 10\text{V}$
Coupled	Current Transfer Ratio (CTR)					$10\text{mA } I_F, 10\text{V } V_{CE}$
	MCT270	50			%	
	MCT271	45	90		%	
	MCT272	75	150		%	
	MCT273	125	250		%	
	MCT274	225	400		%	
	MCT275	70	210		%	
	MCT276	15	60		%	
	MCT277	100			%	
	Collector-emitter Saturation Voltage $V_{CE(SAT)}$			0.4	V	$16\text{mA } I_F, 2\text{mA } I_C$
	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)
	Switching Time t_{ON}, t_{OFF}					$V_{CC} = 5\text{V}, R_L = 100\Omega,$
	MCT270, 272		10		μs	$I_C = 2\text{mA}$, (fig 1)
	MCT271		7		μs	
	MCT273		20		μs	
	MCT274		25		μs	
	MCT275, 277		15		μs	
	MCT276		3.5		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.

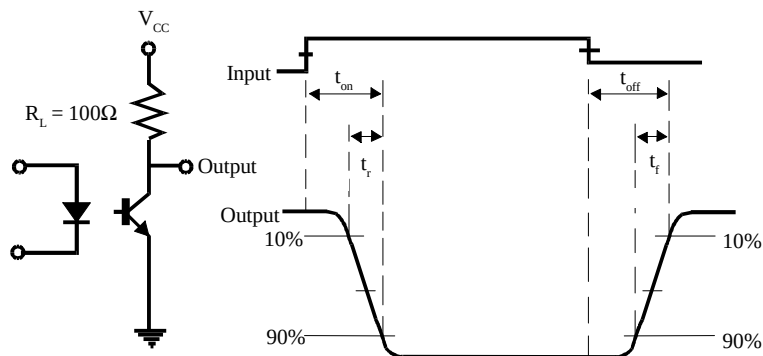
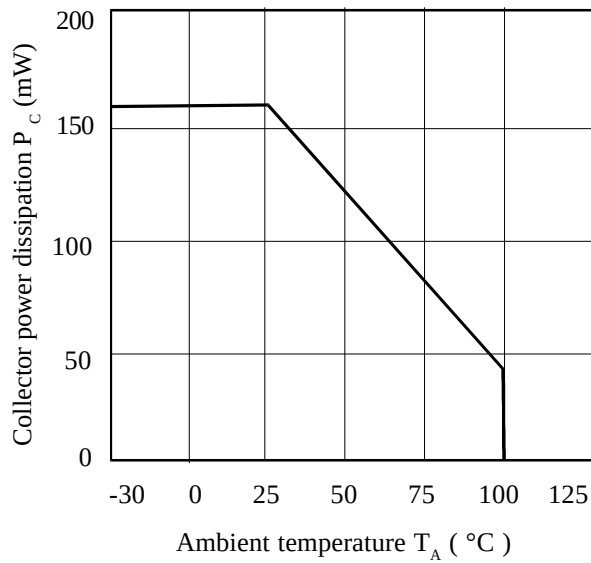
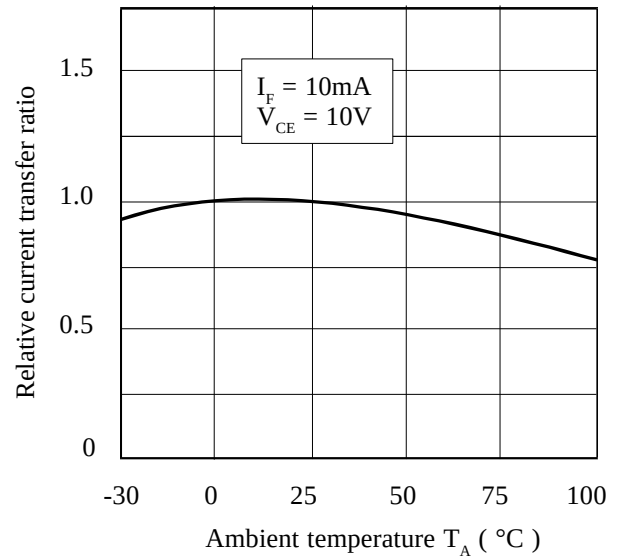


FIG 1

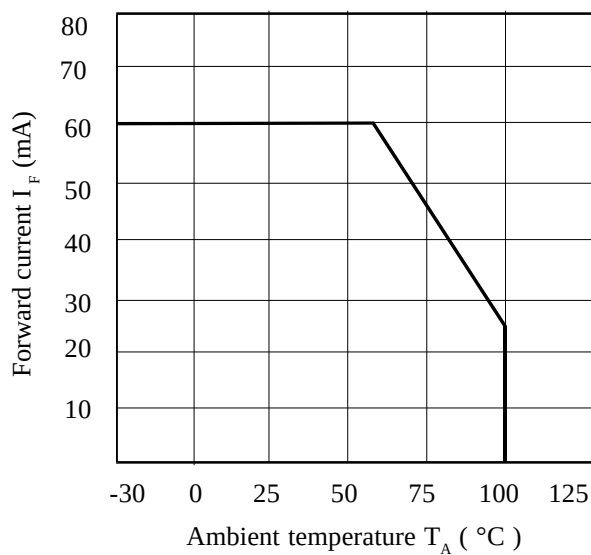
Collector Power Dissipation vs. Ambient Temperature



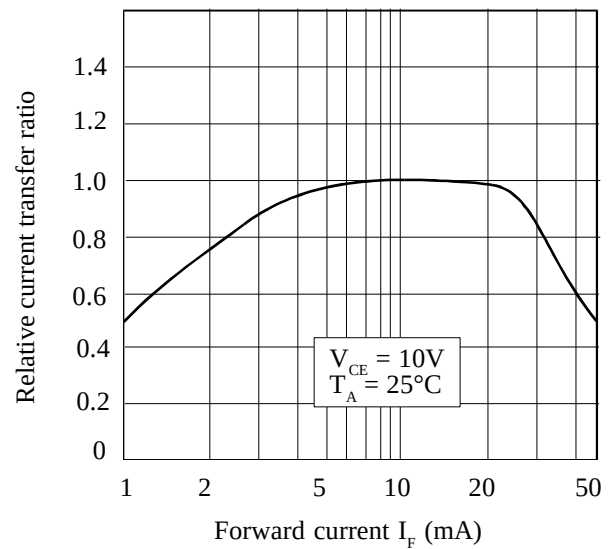
Relative Current Transfer Ratio vs. Ambient Temperature



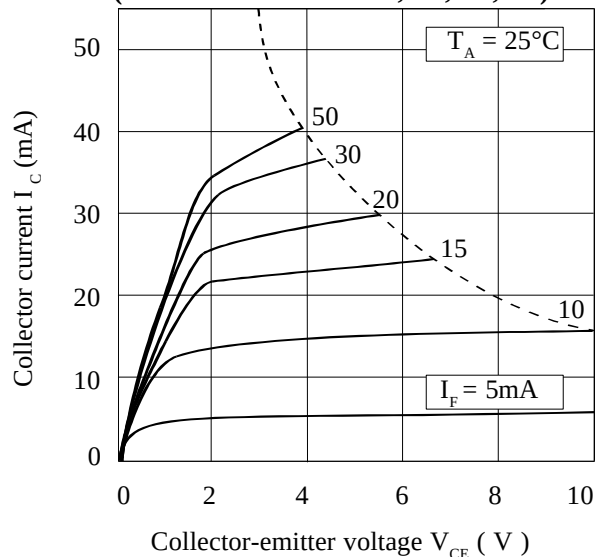
Forward Current vs. Ambient Temperature



Relative Current Transfer Ratio vs. Forward Current



Collector Current vs. Collector-emitter Voltage (Normalised to MCT270,273,275,277)



Collector-emitter Saturation Voltage vs. Ambient Temperature

