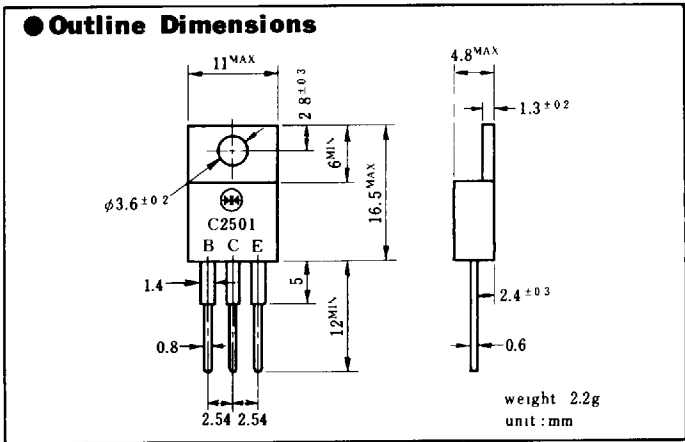


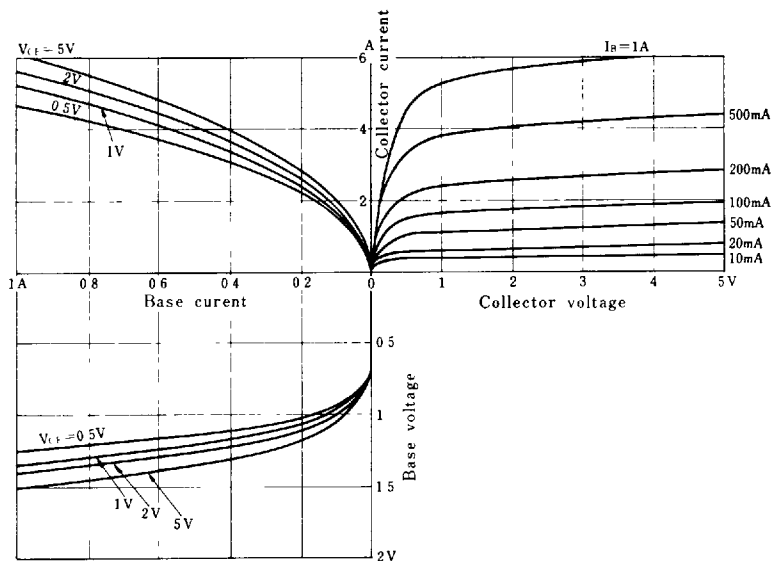
40W T3V_{F1}



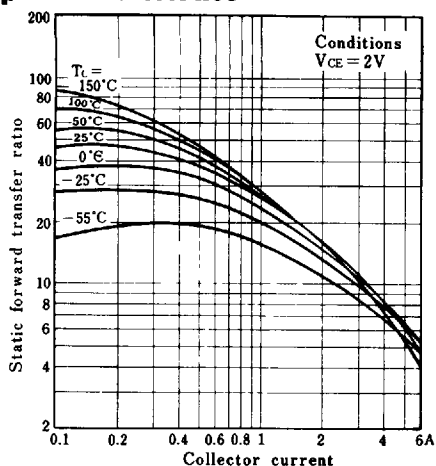
● Ratings

Item	Symbol	EIAJ.No. House. No. Conditions		Unit		
		2SC2501 T3V40F ₁				
Absolute Maximum Ratings	Storage Temperature	T _{stg}	-55 ~ +150	°C		
	Junction Temperature	T _J	+150	°C		
	Collector to Base Voltage	V _{CB0}	500	V		
	Collector to Emitter Voltage	V _{CE0}	400	V		
	Emitter to Base Voltage	V _{EB0}	7	V		
	Collector Current	DC	I _C	3	A	
		Peak	I _{CP}	6	A	
		Base Current	DC	I _B	1	A
	Peak		I _{BP}	2	A	
	Transistor Dissipation	P _T	T _C = 25°C	40	W	
Electrical characteristics (T _C = 25°C)	Collector to Emitter Sustaining Voltage	V _{CE0(sus)}	I _C = 0.1A	MIN 400	V	
	Collector Cut-off Current	I _{CB0}	At Rated Voltage	MAX 0.1	mA	
		I _{CE0}	At Rated Voltage × 0.8	MAX 0.1	mA	
	Emitter Cut-off Current	I _{EB0}	At Rated Voltage	MAX 1	mA	
	Static Forward Transfer Ratio	h _{FE1}	V _{CE} = 2V I _C = 1.5A	MIN 15 STD 20		
		h _{FE2}	V _{CE} = 2V I _C = 3A	MIN 8 STD 10		
	Collector to Emitter Saturation Voltage	V _{CE(sat)}	I _C = 1.5A	STD 0.32 MAX 0.7	V	
		V _{BE(sat)}	I _B = 0.15A	STD 1 MAX 1.5	V	
	Junction to Case Thermal Resistance	θ _{JC}	Between Junction and Case	MAX 3.12	°C/W	
	Gain Bandwidth Product	f _T	V _{CE} = 10V I _C = 0.3A	STD 20	MHz	
		Turn on Time	ton	I _{B1} = I _{B2} = 0.3A	STD 0.55 MAX 1	μS
			Storage Time	ts	I _C = 1.5A R _L = 20Ω	STD 2.3 MAX 3
		Fall Time		tf	V _{BB2} = 4V	STD 0.5 MAX 0.7

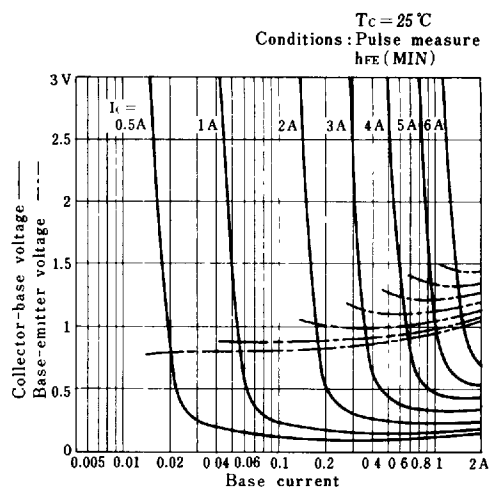
● Input Output transmission characteristics



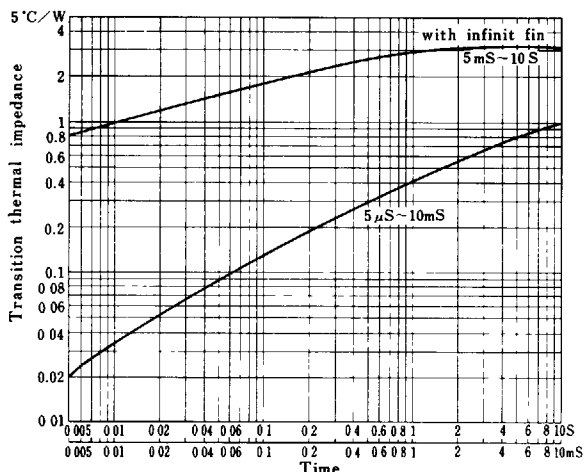
● Static forward transfer ratio vs temp. characteristics



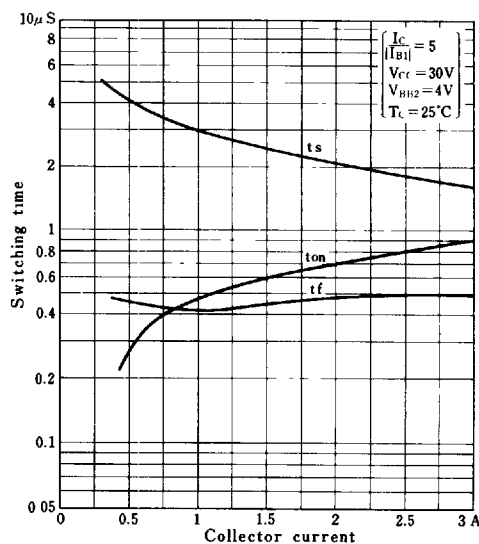
● Saturation voltage characteristics



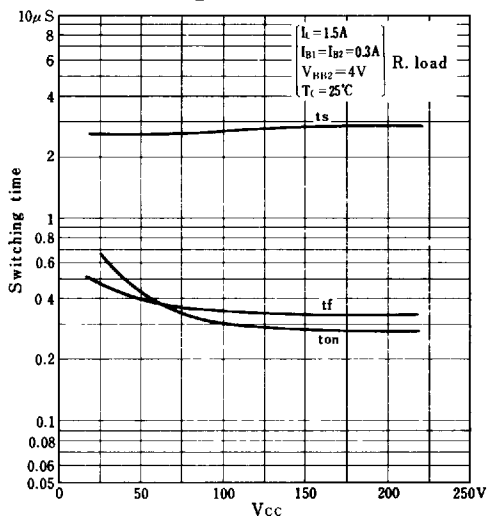
● Transition heat impedance



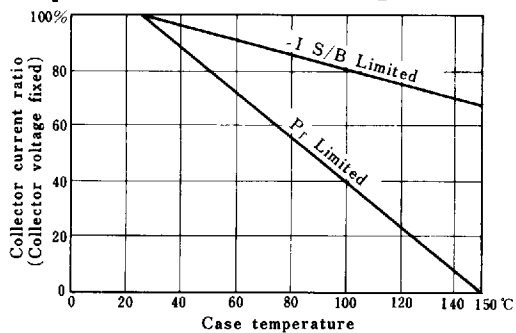
● Collector current vs Switching time



● Vcc vs Switching time



● Dissipation and Is/B derating curve



● Safe operating zone

