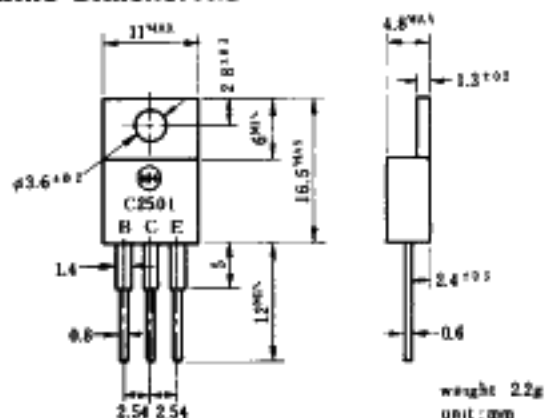


40W T3V_{F1}

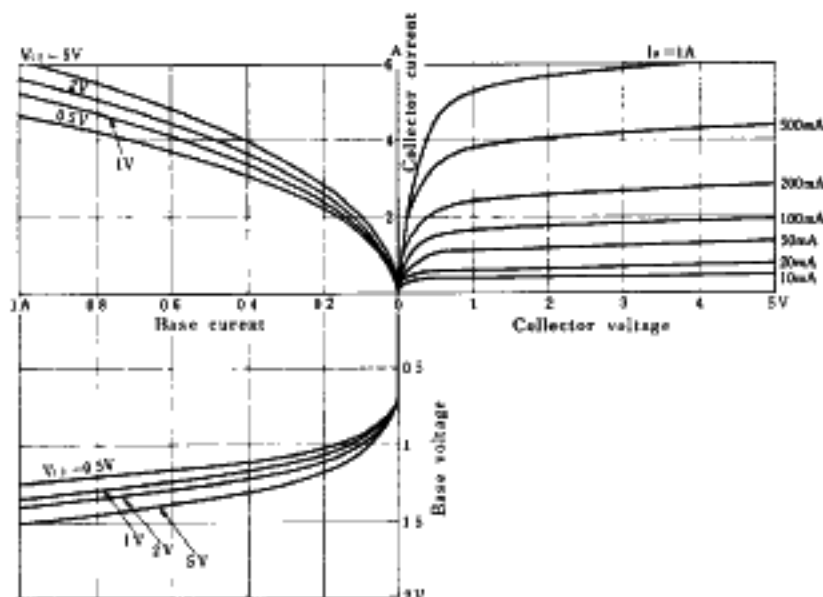
● Outline Dimensions



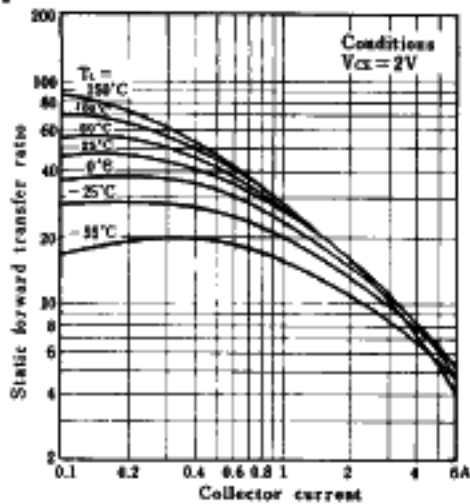
● Ratings

Item	Symbol	EIAJ. No. House. No. Conditions	2SC2501		Unit
			T3V40F ₁		
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
Absolute Maximum Ratings	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	
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	t _{ON}	I _{B1} = I _{B2} = 0.3A I _C = 1.5A	STD 0.55 MAX 1	μs	
Storage Time	t _S	R _L = 20Ω	STD 2.3 MAX 3	μs	
Fall Time	t _F	V _{BE2} = 4V	STD 0.5 MAX 0.7	μs	

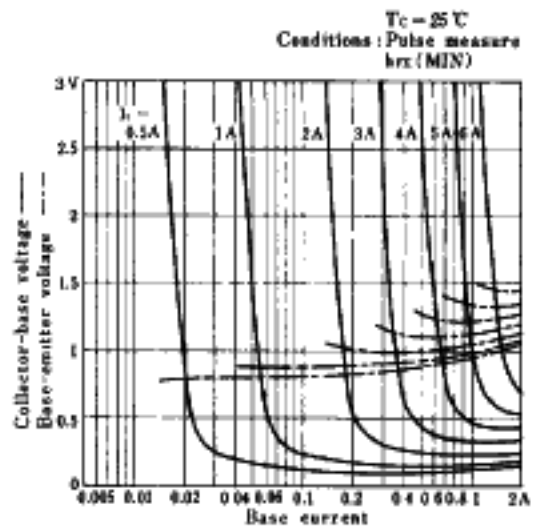
● Input Output transmission characteristics



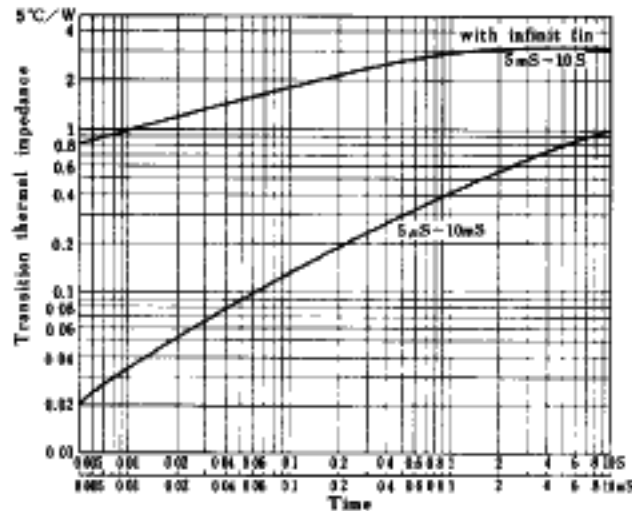
● Static forward transfer ratio vs temp. characteristics



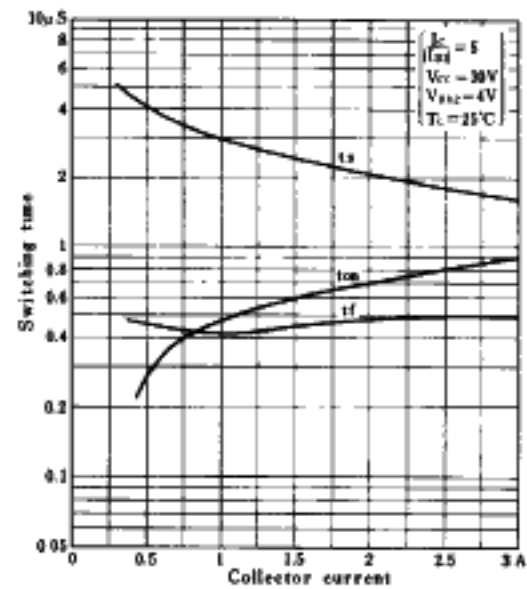
● Saturation voltage characteristics



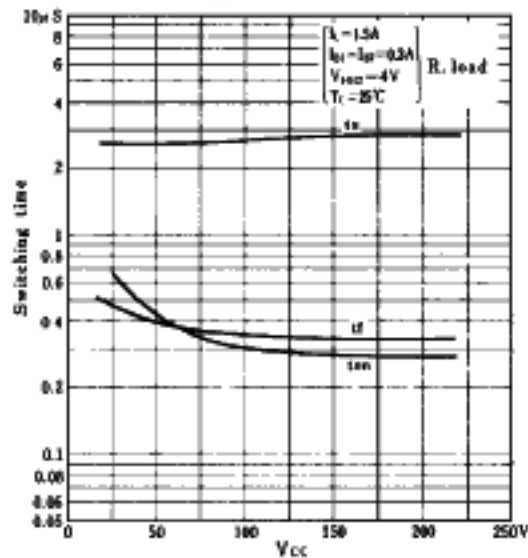
● Transition heat impedance



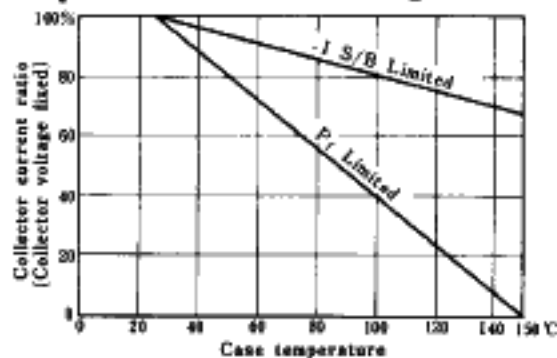
● Collector current vs Switching time



● V_{CE} vs Switching time



● Dissipation and I_S/B derating curve



● Safe operating zone

