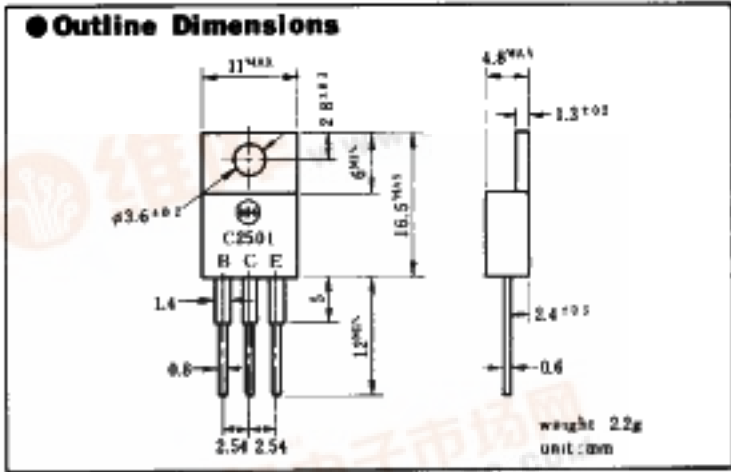


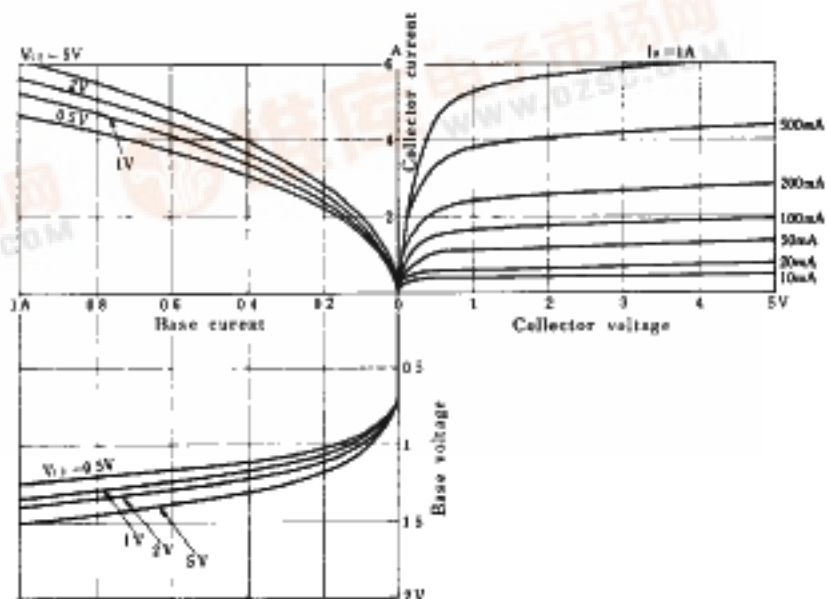
40W
T3V_{F1}



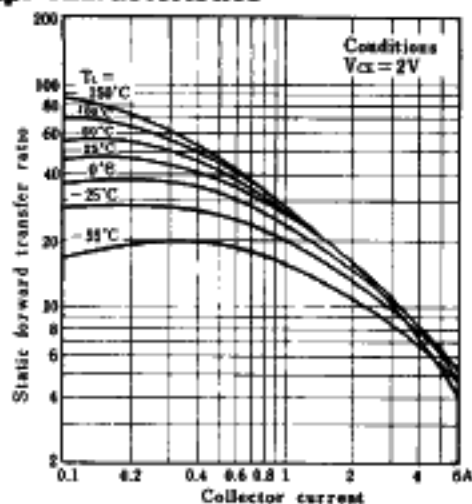
● Ratings

Item	Symbol	EIAJ. No.		Unit	
		House. No.	Conditions		
			2SC2501		
			T3V _{F1}		
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
Collector to Emitter Sustaining Voltage	V _{CE0(sus)}	I _c = 0.1A	MIN 400	V	
Collector Cut-off Current	I _{CE0}	At Rated Voltage	MAX 0.1	mA	
	I _{CE0}	At Rated Voltage × 0.8	MAX 0.1		
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		
		V _{CE} = 2V I _c = 3A	MIN 8 STD 10		
	h _{FE2}	V _{CE} = 2V I _c = 3A	MIN 8 STD 10		
Electrical characteristics (T _C = 25°C)	Collector to Emitter Saturation Voltage	V _{CE(sat)}	I _c = 1.5A I _b = 0.15A	STD 0.32 MAX 0.7	V
	Base to Emitter Saturation Voltage	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 R _L = 20Ω	STD 0.55	μs	
			MAX 1		
Storage Time	t _S	I _c = 1.5A R _L = 20Ω	STD 2.3	μs	
			MAX 3		
Fall Time	t _F	V _{CE} = 4V	STD 0.5	μs	
			MAX 0.7		

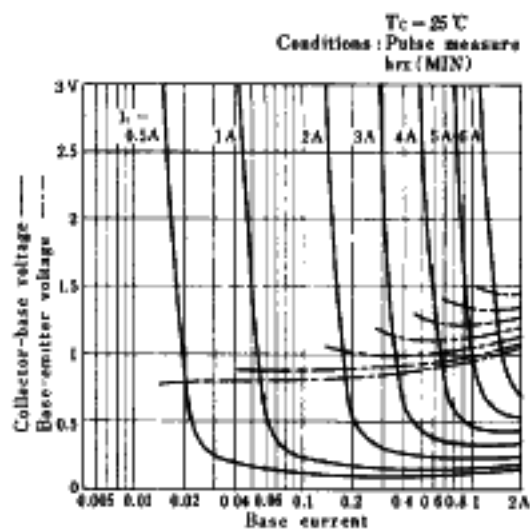
● Input Output transmission characteristics



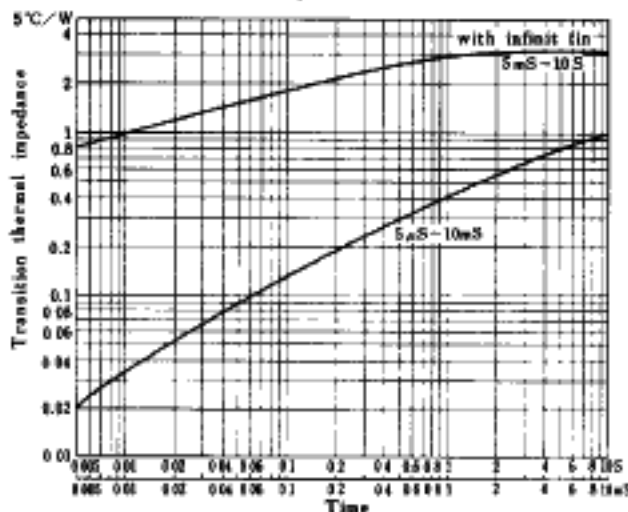
● **Static forward transfer ratio vs temp. characteristics**



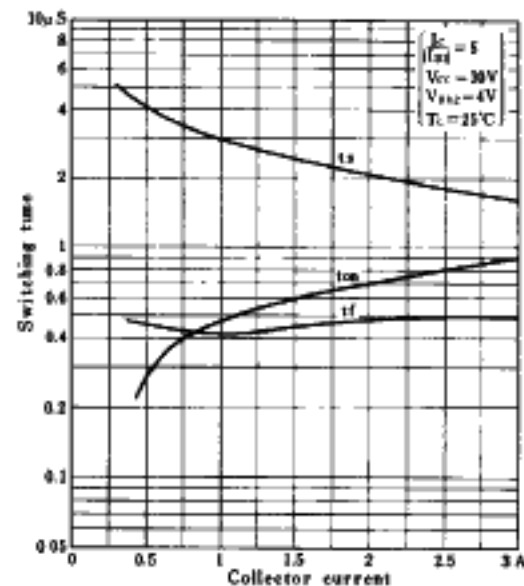
● **Saturation voltage characteristics**



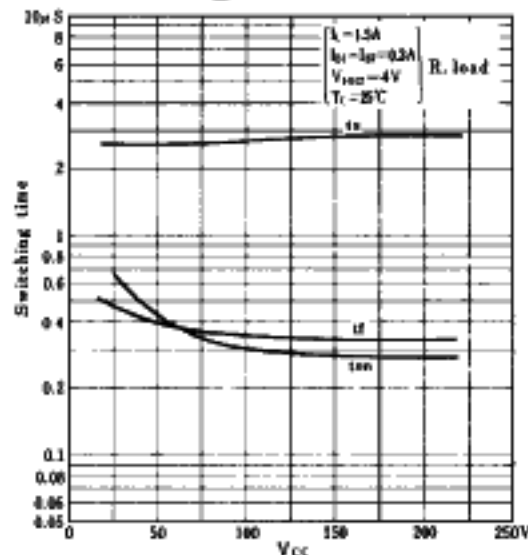
● **Transition heat impedance**



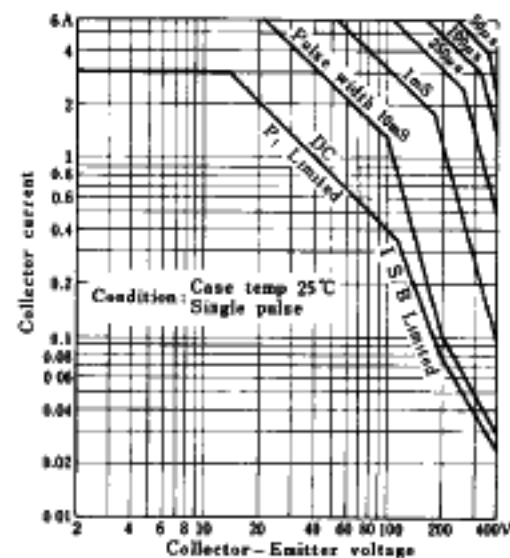
● **Collector current vs Switching time**



● **V_{CE} vs Switching time**



● **Safe operating zone**



● **Dissipation and I_{S/B} derating curve**

