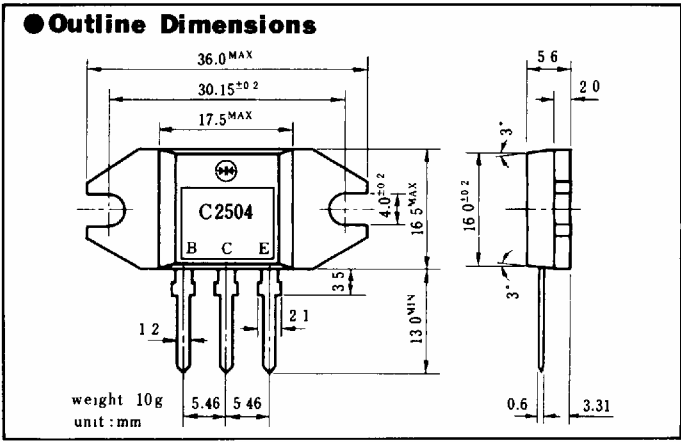


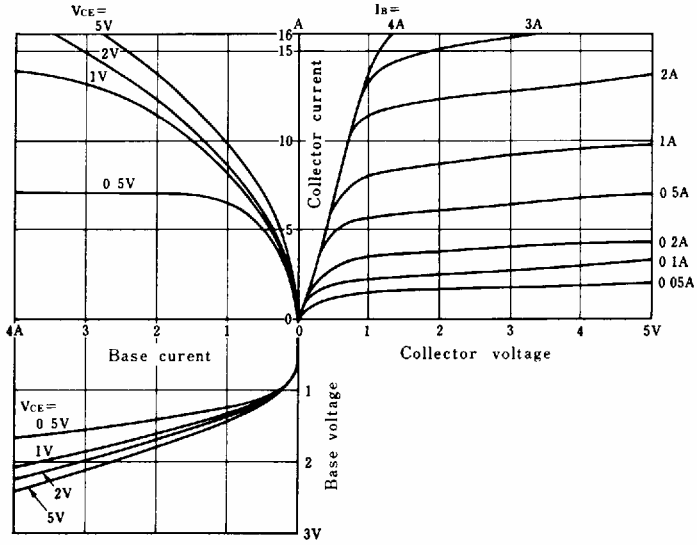
100W T10V F1



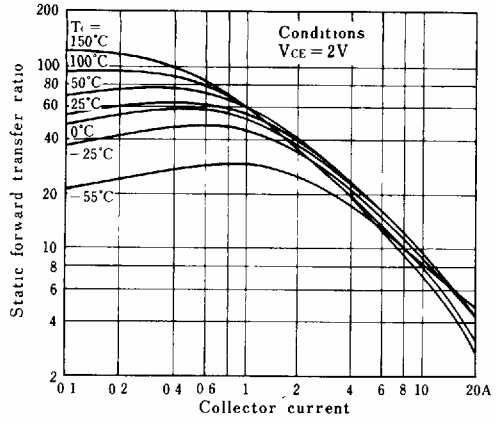
● Ratings

Item	Symbol	EIAJ. No. House. No. Conditions	2SC2504		Unit	
			T10V40F1			
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		10	A
		Peak	I _{CP}		20	A
		Base Current	DC	I _B		4
	Peak		I _{BP}		8	A
	Transistor Dissipation	P _T	T _C = 25°C	100	W	
Electrical Characteristics (T _C = 25°C)	Collector to Emitter Sustaining Voltage	V _{CE0(sus)}	I _C = 0.2A	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		
	Emitter Cut-off Current	I _{EB0}	At Rated Voltage	MAX 1	mA	
	Static Forward Transfer Ratio	h _{FE1}	V _{CE} = 2V I _C = 5A	MIN 15		
			STD 20			
		h _{FE2}	V _{CE} = 2V I _C = 10A	MIN 8		
			STD 10			
	Collector to Emitter Saturation Voltage	V _{CE(sat)}	I _C = 5A	STD 0.4	V	
			I _B = 0.5A	MAX 0.7		
	Base to Emitter Saturation Voltage	V _{BE(sat)}		STD 1	V	
				MAX 1.5		
	Junction to Case Thermal Resistance	θ _{JC}	Between Junction and Case	MAX 1.25	°C/W	
Gain Bandwidth Product	f _T	V _{CE} = 10V I _C = 1A	STD 20	MHz		
Turn on Time	t _{on}	I _{B1} = I _{B2} = 1A I _C = 5A	STD 0.7	μs		
			MAX 1			
Storage Time	t _s	R _L = 5Ω V _{BB2} = 4V	STD 2.4	μs		
			MAX 3			
Fall Time	t _f		STD 0.5	μs		
			MAX 0.7			

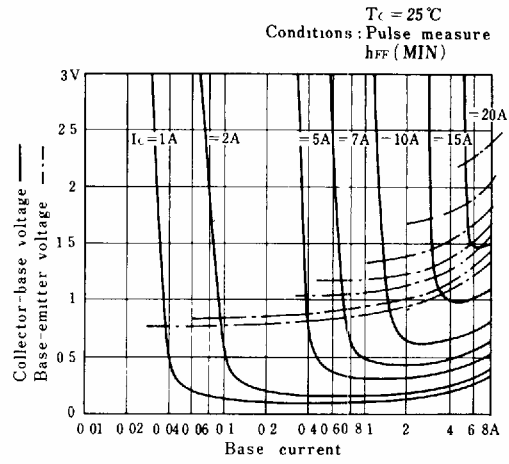
● Input Output transmission characteristics



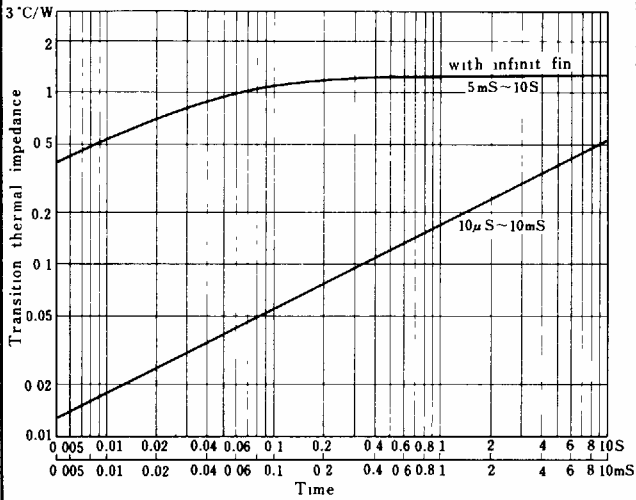
● Static forward transfer ratio vs temp. characteristics



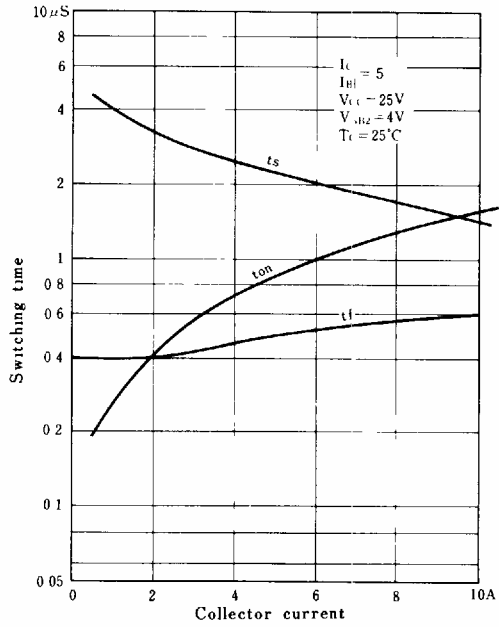
● Saturation voltage characteristics



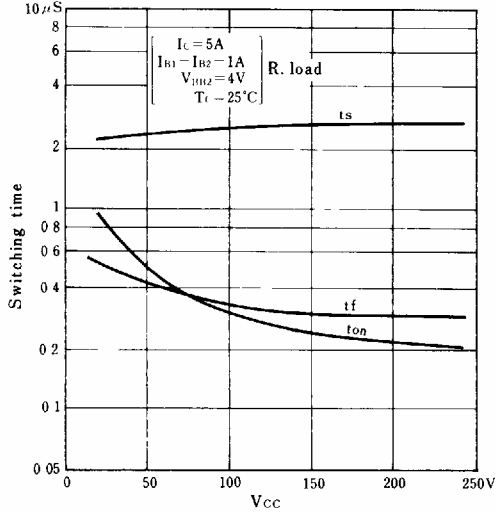
● Transition heat impedance



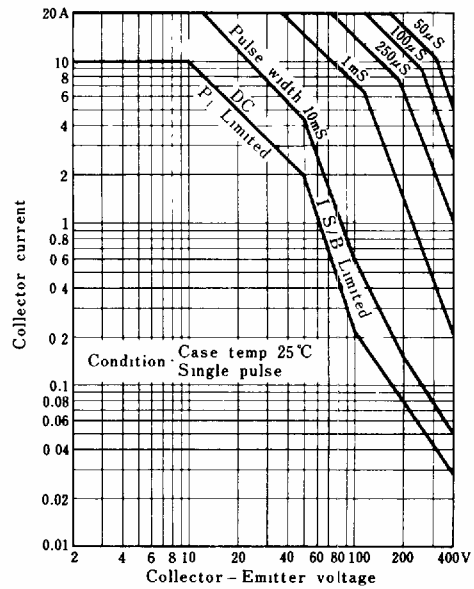
● Collector current vs Switching time



● Vcc vs Switching time



● Safe operating zone



● Dissipation and Is/B derating curve

