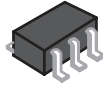


RoHS Compliant Product

SOT-363

**\* Features**



Power dissipation.

$$P_{CM} : 0.2 \text{ W (Temp.}=25^{\circ}\text{C)}$$

Collector current

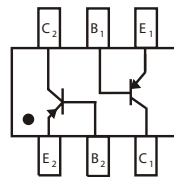
$$I_{CM} : - 0.6 \text{ A}$$

Collector -base voltage

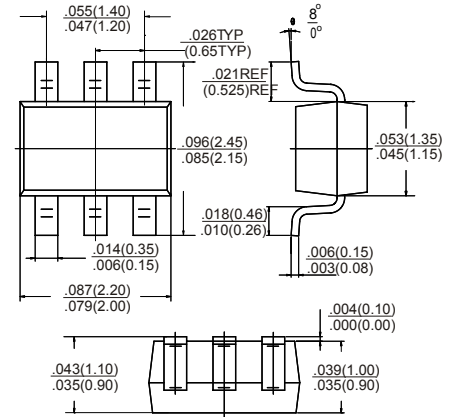
$$V_{(BR)CBO} : - 40 \text{ V}$$

Operating & storage junction temperature

$$T_j, T_{stg} : -55^{\circ}\text{C} \sim +150^{\circ}\text{C}$$



Marking : K2T



Dimensions in inches and (millimeters)

**ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)**

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu\text{A}, I_E = 0$	-40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, I_B = 0$	-40			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu\text{A}, I_C = 0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -50 \text{ V}, I_E = 0$			-0.1	$\mu\text{A}$
Collector cut-off current	$I_{CEO}$	$V_{CE} = -35 \text{ V}, I_B = 0$			-0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5 \text{ V}, I_C = 0$			-0.1	$\mu\text{A}$
DC current gain	$h_{FE(1)}$	$V_{CE} = -1 \text{ V}, I_C = -0.1 \text{ mA}$	30			
	$h_{FE(2)}$	$V_{CE} = -1 \text{ V}, I_C = -1 \text{ mA}$	60			
	$h_{FE(3)}$	$V_{CE} = -1 \text{ V}, I_C = -10 \text{ mA}$	100			
	$h_{FE(4)}$	$V_{CE} = -2 \text{ V}, I_C = -150 \text{ mA}$	100		300	
	$h_{FE(5)}$	$V_{CE} = -2 \text{ V}, I_C = -500 \text{ mA}$	20			
Collector-emitter saturation voltage	$V_{CE(sat)1}$	$I_C = -150 \text{ mA}, I_B = -15 \text{ mA}$			-0.4	V
	$V_{CE(sat)2}$	$I_C = -500 \text{ mA}, I_B = -50 \text{ mA}$			-0.75	V
Base-emitter saturation voltage	$V_{BE(sat)1}$	$I_C = -150 \text{ mA}, I_B = -15 \text{ mA}$	-0.75		-0.95	V
	$V_{BE(sat)2}$	$I_C = -500 \text{ mA}, I_B = -50 \text{ mA}$			-1.3	V
Transition frequency	$f_T$	$V_{CE} = -10 \text{ V}, I_C = -20 \text{ mA}$ $f = 100 \text{ MHz}$	200			MHz
Output Capacitance	$C_{ob}$	$V_{CB} = -10 \text{ V}, I_E = 0$ $f = 1 \text{ MHz}$			8.5	pF
Delay time	$t_d$	$V_{CC} = -30 \text{ V}, V_{BE} = -2 \text{ V}$			15	nS
Rise time	$t_r$	$I_C = -150 \text{ mA}, I_{B1} = -15 \text{ mA}$			20	nS
Storage time	$t_s$	$V_{CC} = -30 \text{ V}, I_C = -150 \text{ mA}$			225	nS
Fall time	$t_f$	$I_{B1} = I_{B2} = -15 \text{ mA}$			30	nS

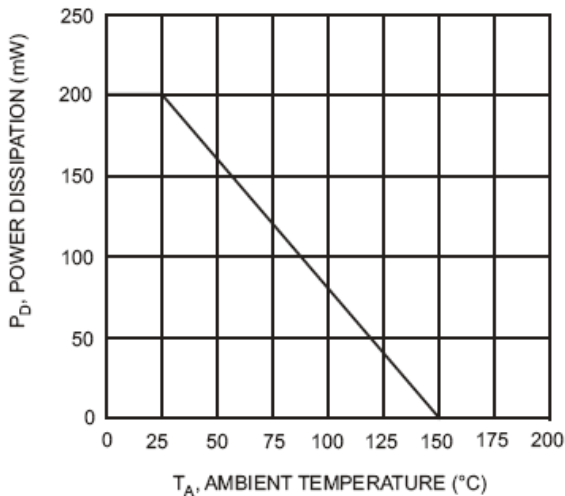


Fig. 1, Max Power Dissipation vs Ambient Temperature

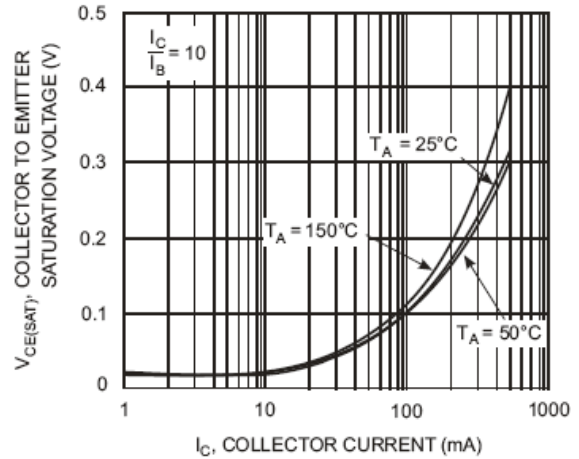


Fig. 2 Collector Emitter Saturation Voltage vs. Collector Current

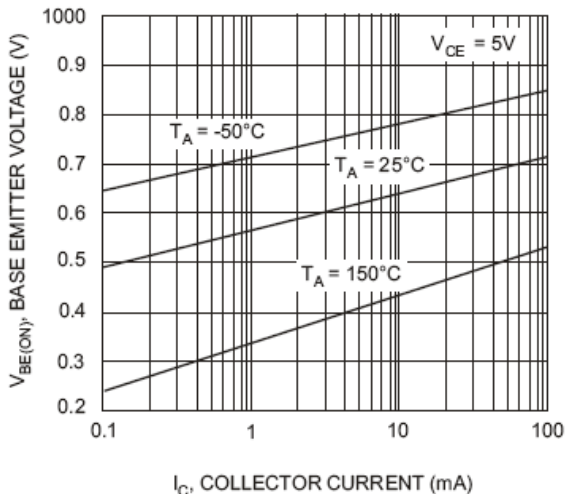


Fig. 3 Base-Emitter Voltage vs. Collector Current

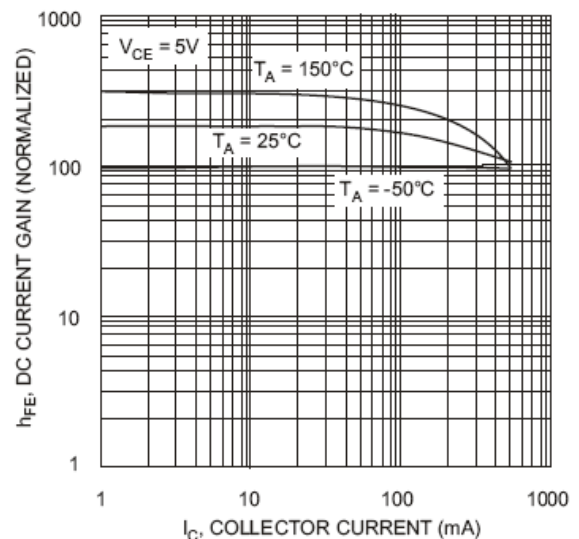


Fig. 4 DC Current Gain vs. Collector Current

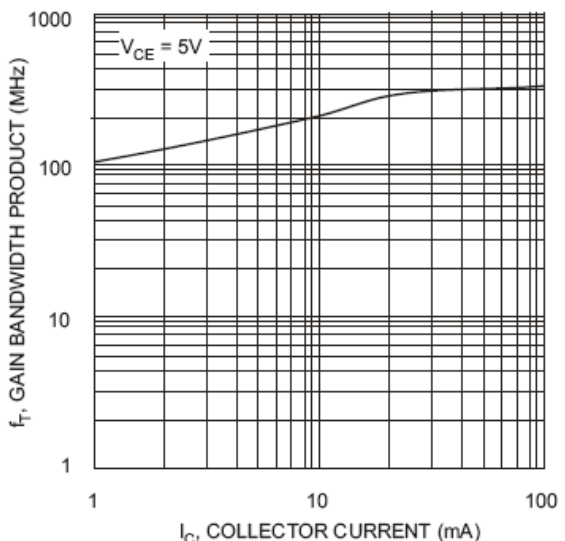


Fig. 5 Gain Bandwidth Product vs. Collector Current

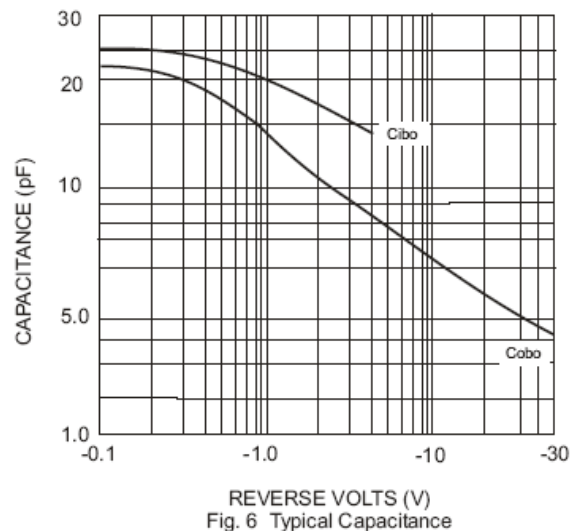


Fig. 6 Typical Capacitance