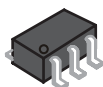


RoHS Compliant Product



SOT-363

* Features

Power dissipation

$$P_{CM} : 0.3 \text{ W (Tamp.} = 25^{\circ}\text{C)}$$

Collector current

$$I_{CM} : -0.2 \text{ A}$$

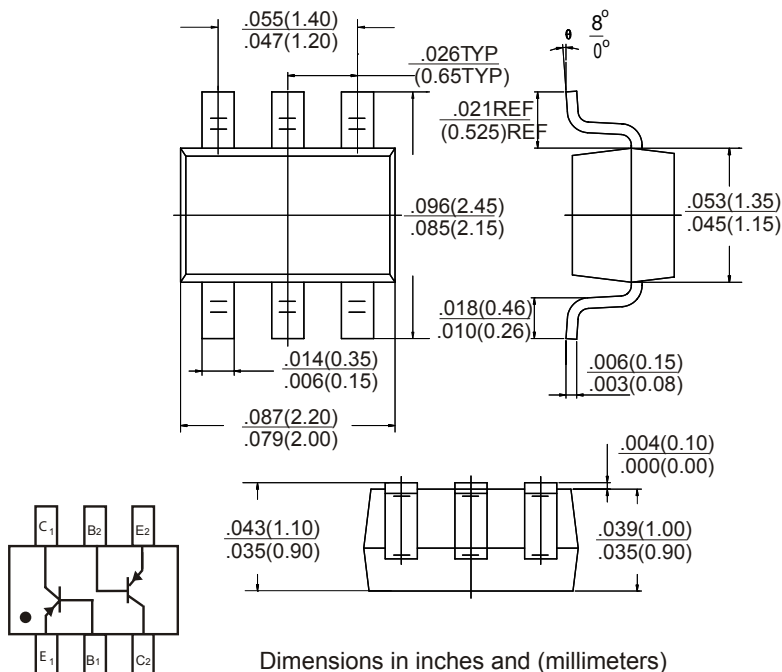
Collector-base voltage

$$V_{(BR)CBO} : -50 \text{ V}$$

Operating & Storage junction Temperature

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

Marking : 3C



Electrical Characteristics(Tamb=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10\mu\text{A}, I_E = 0$	-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -10\text{mA}, I_B = 0$	-45			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu\text{A}, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -30\text{V}, I_E = 0$			-15	nA
DC current gain	h_{FE}	$V_{CE} = -5\text{V}, I_C = -2\text{mA}$	125		630	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -10\text{mA}, I_B = -0.5\text{mA}$			-0.3	V
	$V_{CE(sat)}$	$I_C = -100\text{mA}, I_B = -5\text{mA}$			-0.65	V
Base-emitter voltage	V_{BE}	$V_{CE} = -5\text{V}, I_C = -2\text{mA}$	-0.6		-0.75	V
	$V_{BE(1)}$	$V_{CE} = -5\text{V}, I_C = -10\text{mA}$			-0.82	V
Transition frequency	f_T	$V_{CE} = -5\text{V}, I_C = -10\text{mA}, f = 100\text{MHz}$		200		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$		3.5		pF
Noise figure	NF	$V_{CE} = -5\text{V}, I_C = -0.2\text{mA}$ $F = 1\text{kHz}, R_S = 2\text{k}\Omega, BW = 200\text{Hz}$		2.5		dB

Note: 1 Short duration test pulse used to minimize self-heating effect.

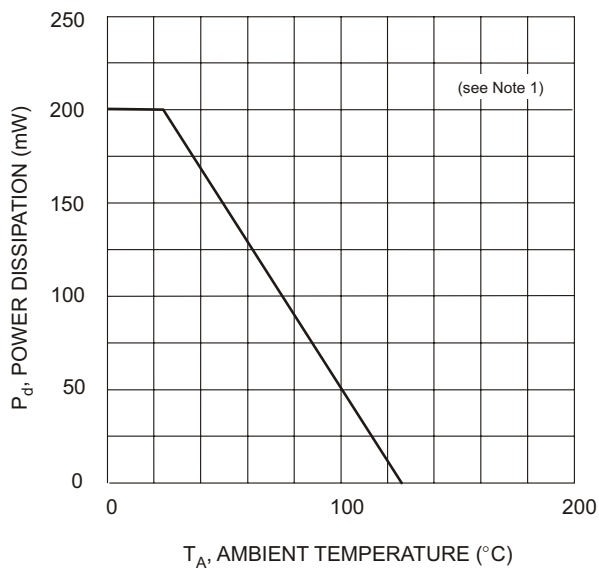


Fig. 1, Power Derating Curve

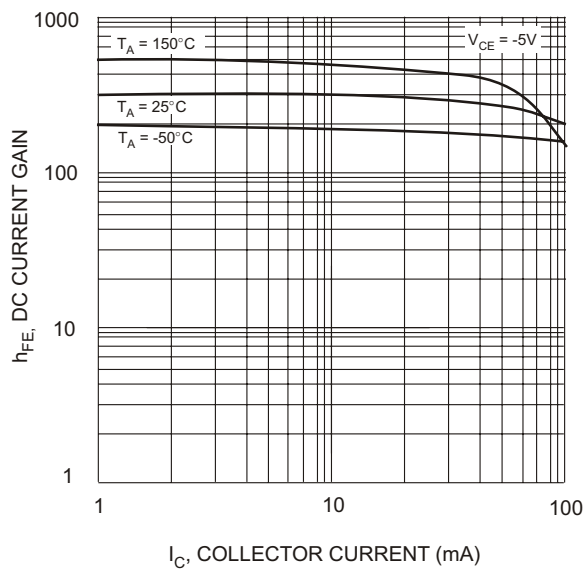


Fig. 2, DC Current Gain vs. Collector Current

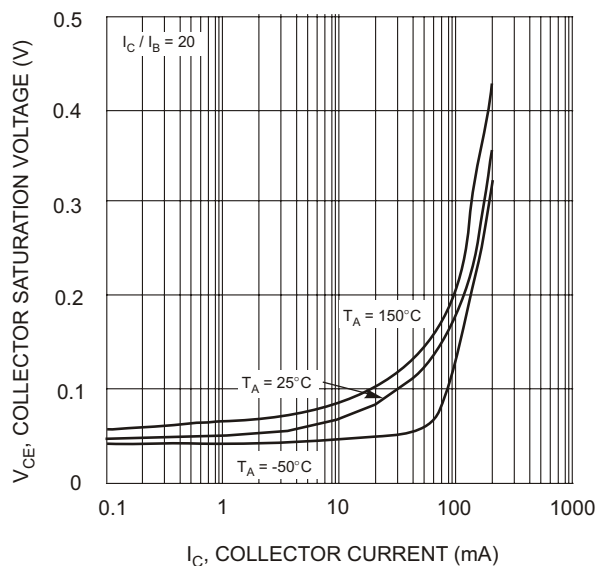


Fig. 3, Collector Saturation Voltage vs. Collector Current

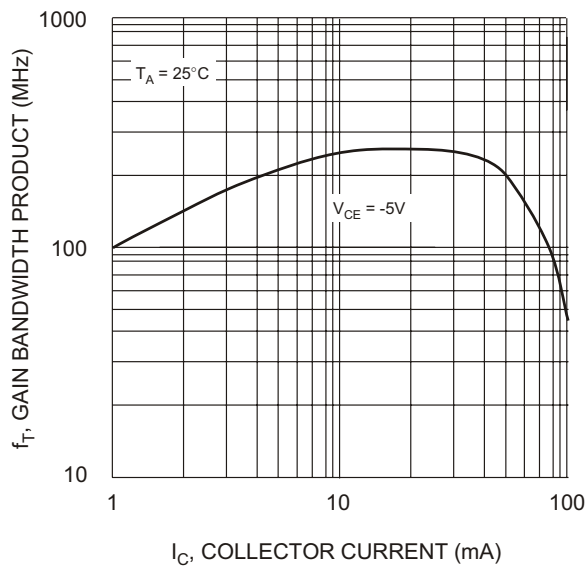


Fig. 4, Gain Bandwidth Product vs. Collector Current