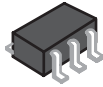


RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

SOT-363

*** Features**



Power dissipation

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

Collector current

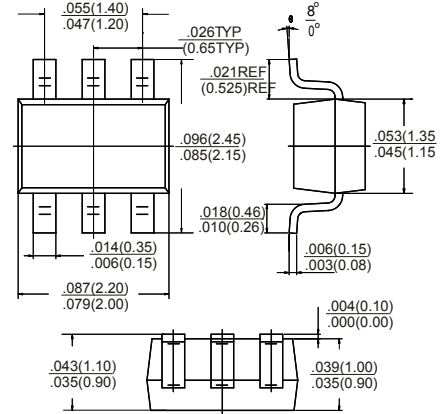
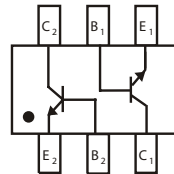
$$I_{CM} : 0.2 \text{ A}$$

Collector-base voltage

$$V_{(BR)CBO} : 60 \text{ V}$$

Operating & Storage junction Temperature

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

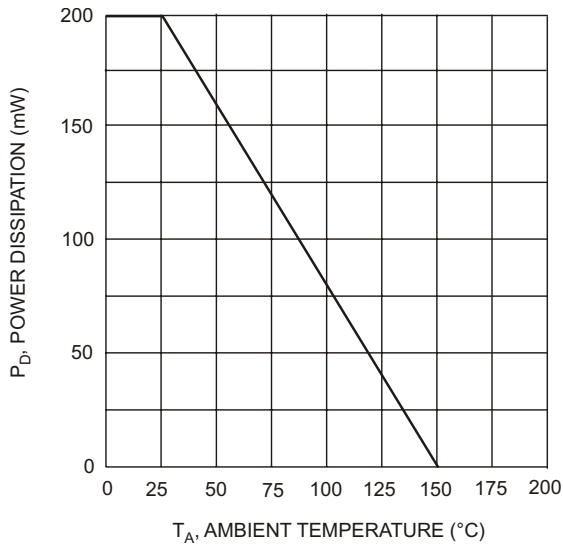


Marking: K6N or MA

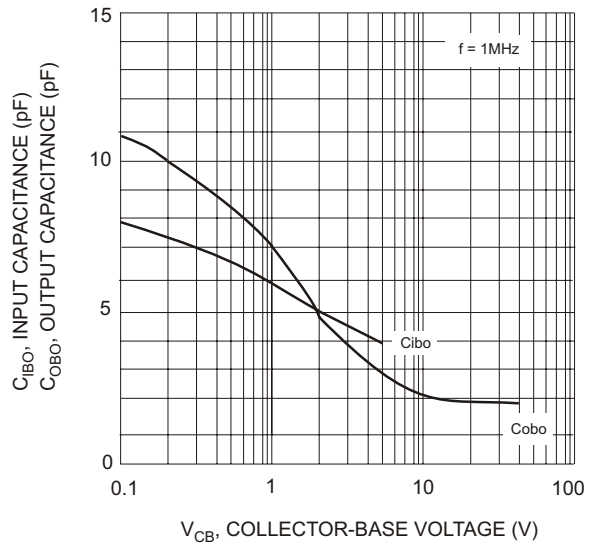
Dimensions in inches and (millimeters)

ELECTRICAL CHARACTERISTICS (T_{amp.}=25° C unless otherwise specified)

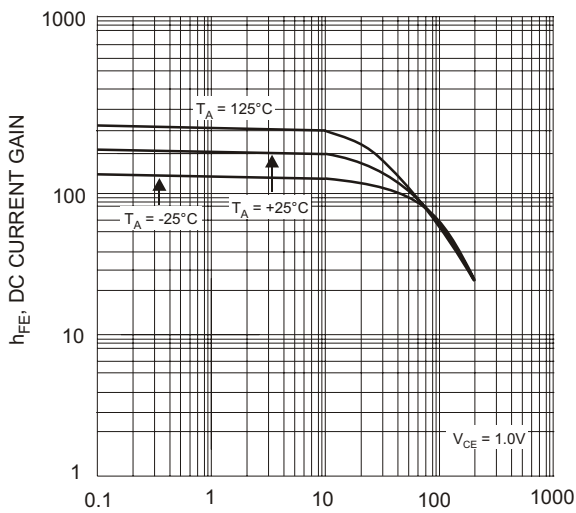
Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 10 \mu\text{A}, I_E = 0$	60		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1 \text{mA}, I_B = 0$	40		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 10 \mu\text{A}, I_C = 0$	5		V
Collector cut-off current	I_{CBO}	$V_{CB} = 30 \text{V}, I_E = 0$		0.05	μA
Collector cut-off current	I_{CEO}	$V_{CE} = 30 \text{V}, I_B = 0$		0.05	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5 \text{V}, I_C = 0$		0.05	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = 1 \text{V}, I_C = 10 \text{mA}$	100	300	
	$h_{FE(2)}$	$V_{CE} = 1 \text{V}, I_C = 50 \text{mA}$	60		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 50 \text{mA}, I_B = 5 \text{mA}$		0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 50 \text{mA}, I_B = 5 \text{mA}$		0.95	V
Transition frequency	f_T	$V_{CE} = 20 \text{V}, I_C = 10 \text{mA}$ $f = 100 \text{MHz}$	300		MHz
Output Capacitance	C_{ob}	$V_{CB} = 5 \text{V}, I_E = 0$ $f = 1 \text{MHz}$		4	pF
Delay time	t_d	$V_{CC} = 3 \text{V}, V_{BE} = 0.5 \text{V}$		35	nS
Rise time	t_r	$I_C = 10 \text{mA}, I_{B1} = 1 \text{mA}$		35	nS
Storage time	t_S	$V_{CC} = 3 \text{V}, I_C = 10 \text{mA}$		200	nS
Fall time	t_f	$I_{B1} = I_{B2} = 1 \text{mA}$		50	nS



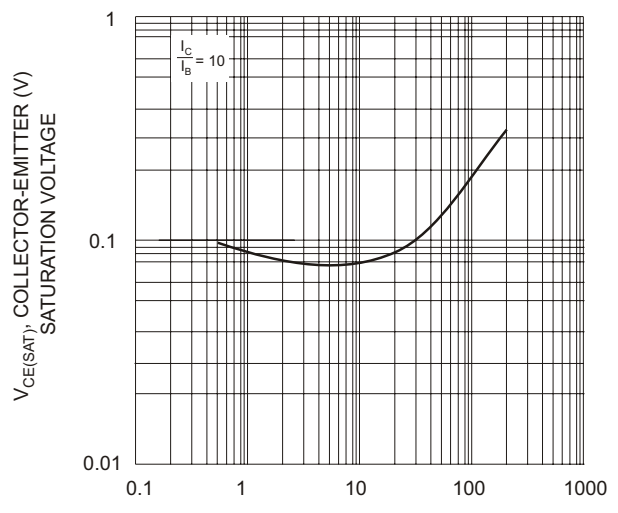
T_A , AMBIENT TEMPERATURE (°C)
Fig. 1, Max Power Dissipation vs Ambient Temperature



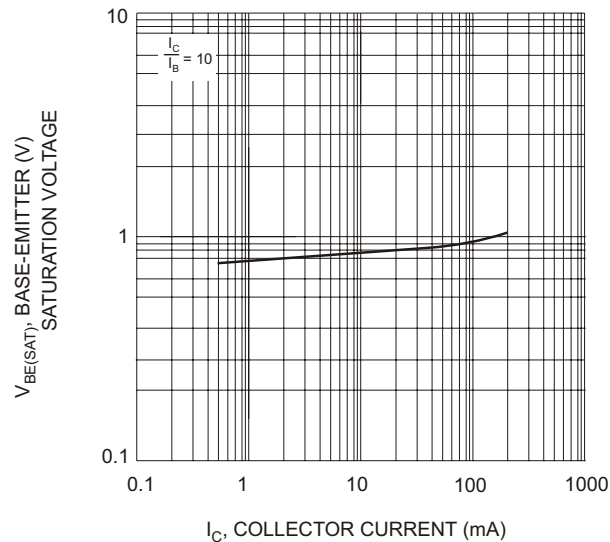
V_{CB} , COLLECTOR-BASE VOLTAGE (V)
Fig. 2, Input and Output Capacitance vs. Collector-Base Voltage



I_C , COLLECTOR CURRENT (mA)
Fig. 3, Typical DC Current Gain vs Collector Current



I_C , COLLECTOR CURRENT (mA)
Fig. 4, Typical Collector-Emitter Saturation Voltage vs. Collector Current



I_C , COLLECTOR CURRENT (mA)
Fig. 5, Typical Base-Emitter Saturation Voltage vs. Collector Current