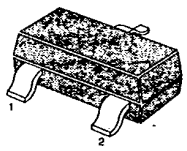
MMBTA43 NPN EPITAXIAL SILICON TRANSISTOR

T-29-19

HIGH VOLTAGE TRANSISTOR

SOT-23



1. Base 2. Emitter 3. Collector

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

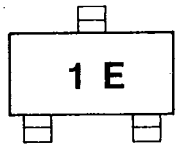
Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	200	V
Collector-Emitter Voltage	V_{CEO}	200	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	500	mA
Collector Dissipation	P_C	350	mW
Storage Temperature	Tstg	150	°C

ELECTRICAL CHARACTERISTICS (T_a=25°C)

Characteristic	Symbol	Test Condition	Min	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=100μA, I_E=0	200		V
*Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=1mA, I_B=0	200		V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E=100μA, I_C=0	6		V
Collector Cutoff Current	I_{CBO}	V_{CB}=160V, I_E=0		100	nA
Emitter Cutoff Current	I_{EBO}	V_{EB}=4V, I_C=0		100	nA
*DC Current Gain	h_{FE}	V_{CE}=10V, I_C=1mA	25		
		V_{CE}=10V, I_C=10mA	40		
		V_{CE}=10V, I_C=30mA	40		
*Collector-Emitter Saturation Voltage	V_{CE} (sat)	I_C=20mA, I_B=2mA		0.5	V
*Base-Emitter Saturation Voltage	V_{BE} (sat)	I_C=20mA, I_B=2mA		0.9	V
Current Gain-Bandwidth Product	f_T	I_C=10mA, V_{CE}=20V f=100MHz	50		MHz
Collector-Base Capacitance	Ccb	V_{CB}=20V, I_E=0 f=1MHz		4	pF

*Pulse Test: Pulse Width≤300μs, Duty Cycle≤2%

Marking



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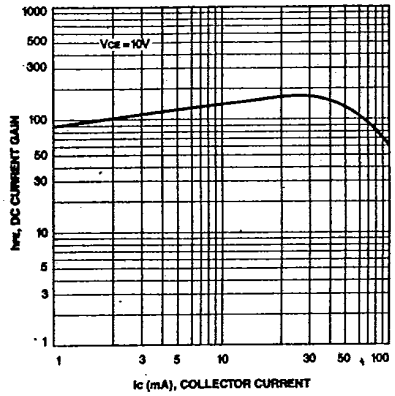
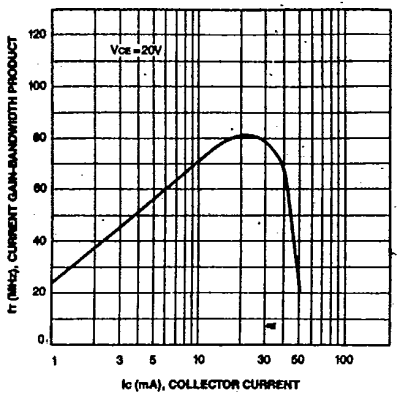
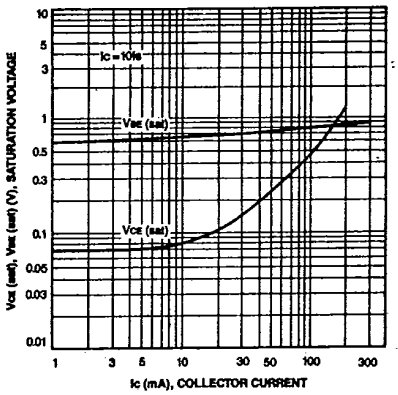
DC CURRENT GAIN



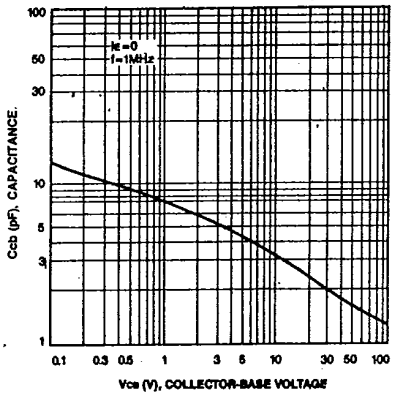
CURRENT GAIN-BANDWIDTH PRODUCT



COLLECTOR-EMITTER SATURATION VOLTAGE
BASE-EMITTER SATURATION VOLTAGE



COLLECTOR-BASE CAPACITANCE



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