

FEATURE

- Low Collector-Emitter Saturation Voltage $V_{CE(sat)}$.
- High Collector Current Capability : I_C and I_{CP} .
- Higher Efficiency Leading to Less Heat Generation.

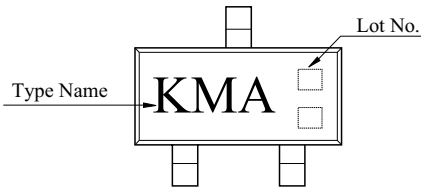
MAXIMUM RATING (Ta=25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	-120	V
Collector-Emitter Voltage		V_{CEO}	-100	V
Emitter-Base Voltage		V_{EBO}	-5	V
Collector Current	DC	I_C	-1	A
	Pulse *	I_{CP}	-3	
Base Current		I_B	-300	mA
Collector Power Dissipation**		P_C	350	mW
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_{stg}	-55 ~ 150	°C

* Pulse Width = 300 μ S, Duty Cycle \leq 2%.

** Package Mounted on 99.5% Alumina 10 × 8 × 0.6mm.

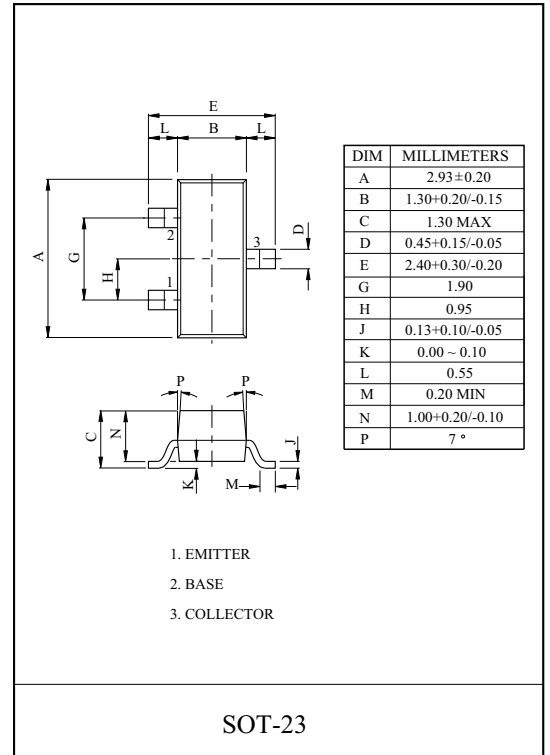
MARKING



ELECTRICAL CHARACTERISTICS (Ta=25°C)

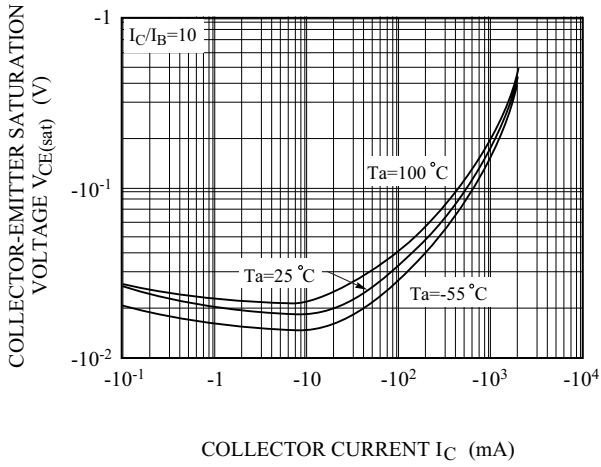
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -100\mu A$	-120	-	-	V
Collector-Emitter Breakdown Voltage **	$V_{(BR)CEO}$	$I_C = -1mA$	-100	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -100\mu A$	-5	-	-	V
Collector Cut-Off Current	I_{CBO}	$V_{CB} = -80V, I_E = 0A$	-	-	-100	nA
Emitter Cut-Off Current	I_{EBO}	$V_{EB} = -4V, I_C = 0A$	-	-	-100	nA
Collector-Emitter Cut-Off Current	I_{CES}	$V_{CES} = -80V, V_{BE} = 0V$	-	-	-100	nA
Collector-Emitter Saturation Voltage **	$V_{CE(sat)}(1)$	$I_C = -250mA, I_B = -25mA$	-	-	-0.12	V
	$V_{CE(sat)}(2)$	$I_C = -500mA, I_B = -50mA$	-	-	-0.18	
	$V_{CE(sat)}(3)$	$I_C = -1A, I_B = -100mA$	-	-	-0.32	
Base-Emitter Saturation Voltage **	$V_{BE(sat)}$	$I_C = -1A, I_B = -100mA$	-	-	-1.1	V
Base-Emitter Voltage	V_{BE}	$V_{CE} = -5V, I_C = -1A$	-	-	-1.0	V
DC Current Gain **	$h_{FE}(1)$	$V_{CE} = -5V, I_C = -1mA$	150	-	-	
	$h_{FE}(2)$	$V_{CE} = -5V, I_C = -250mA$	150	-	-	
	$h_{FE}(3)$	$V_{CE} = -5V, I_C = -500mA$	150	-	450	
	$h_{FE}(4)$	$V_{CE} = -5V, I_C = -1A$	125	-	-	
Transition Frequency	f_T	$V_{CE} = -10V, I_C = -50mA, f = 100MHz$	100	-	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = -10V, f = 1MHz$	-	17	-	pF

** Pulse Width = 300 μ S, Duty Cycle \leq 2%.

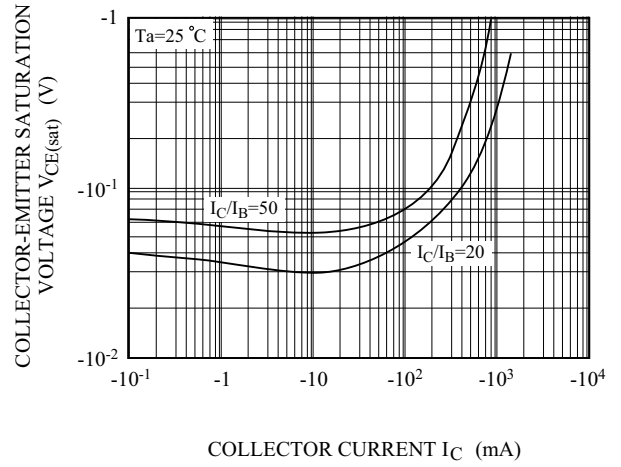


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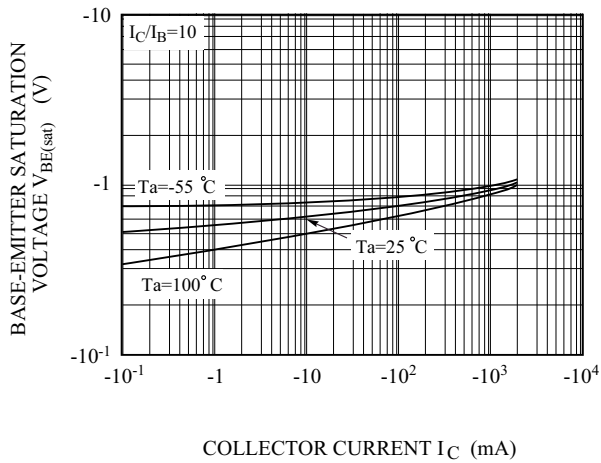
$V_{CE(sat)} - I_C$



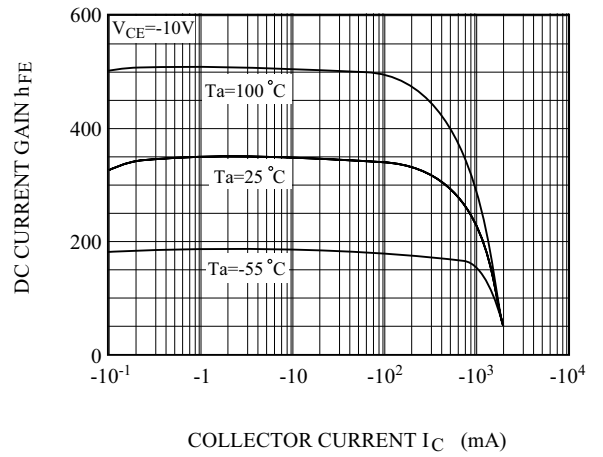
$V_{CE(sat)} - I_C$



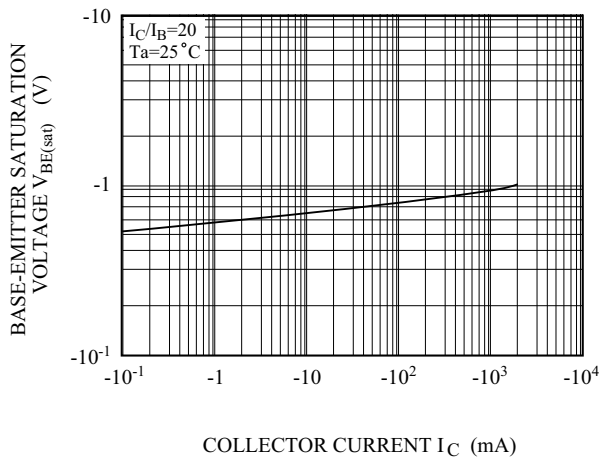
$V_{BE(sat)} - I_C$



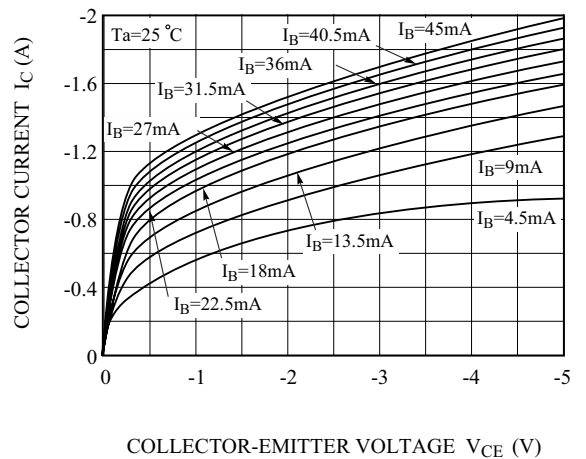
$h_{FE} - I_C$



$V_{BE(sat)} - I_C$



$I_C - V_{CE}$



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SAFE OPERATING AREA

