

MMBT589

Rev.F Apr.-2017

SOT-23

PNP

Silicon PNP transistor in a SOT-23 Plastic Package.

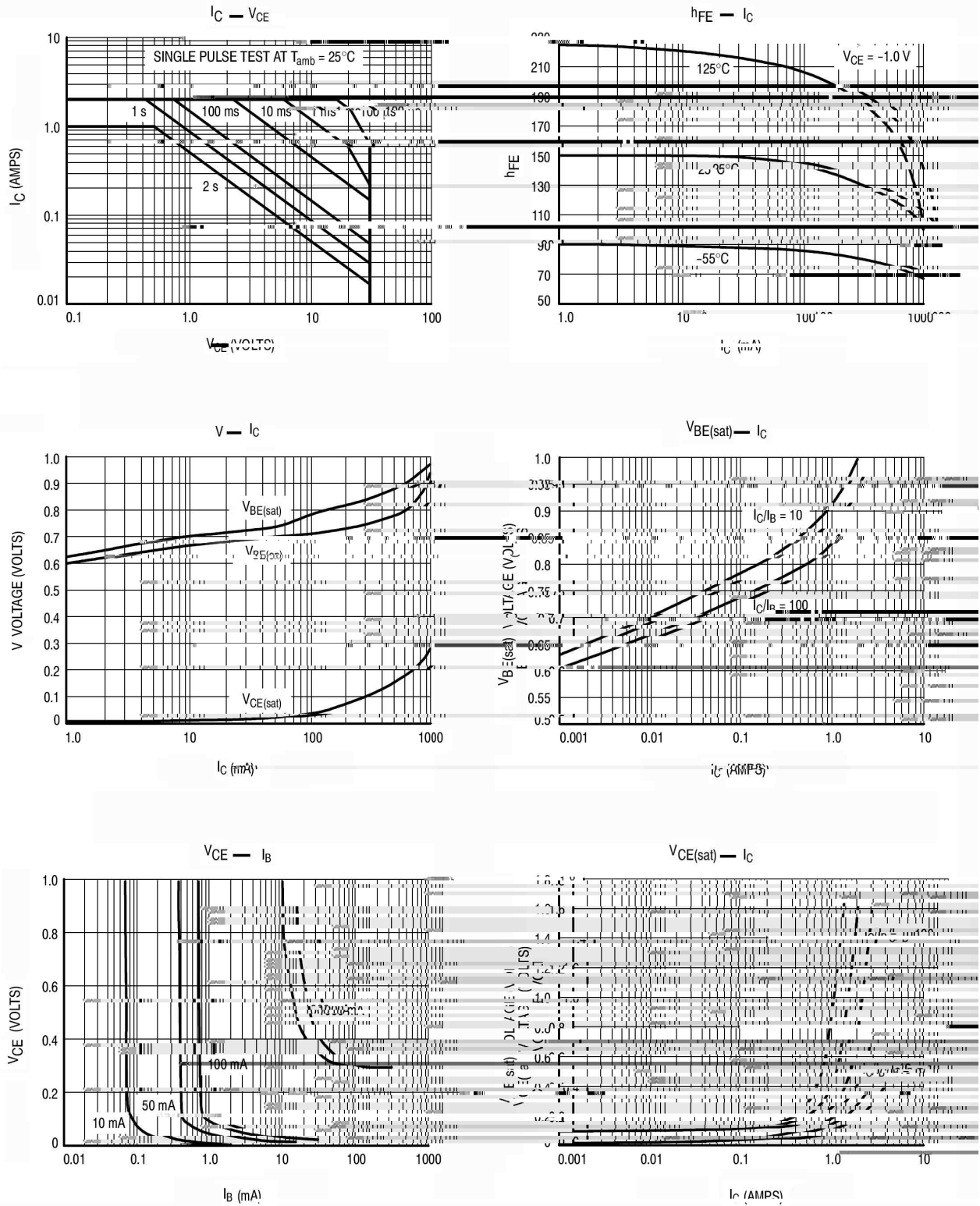
Large current, surface mount device.

Switching for high current applica-5em.3.

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-50	V
Collector to Emitter Voltage	V_{CEO}	-30	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current	I_C	-1.0	A
Collector Current – Peak	I_{CM}	-2.0	A
Collector Power Dissipation	P_D	310	mW
Junction Temperature	T_J	150	
Storage Temperature Range	T_{stg}	-55 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C = -0.1mA$ $I_E = 0$	-50			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C = -10mA$ $I_B = 0$	-30			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E = -0.1mA$ $I_C = 0$	-5.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB} = -30V$ $I_E = 0$			-0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = -4.0V$ $I_E = 0$			-0.1	μA
Collector–Emitter Cutoff Current	I_{CES}	$V_{CES} = -30V$ $I_E = 0$			-0.1	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE} = -2.0V$ $I_C = -500mA$	100		300	
	$h_{FE(2)}$	$V_{CE} = -2.0V$ $I_C = -2.0A$	40			
	$h_{FE(3)}$	$V_{CE} = -2.0V$ $I_C = -1.0A$	80			
	$h_{FE(4)}$	$V_{CE} = -2.0V$ $I_C = -1.0mA$	100			
Collector –Emitter Saturation Voltage	$V_{CE(sat)(1)}$	$I_C = -500mA$ $I_B = -50mA$			-0.25	V
	$V_{CE(sat)(2)}$	$I_C = -1.0A$ $I_B = -100mA$			-0.30	V
	$V_{CE(sat)(3)}$	$I_C = -2.0A$ $I_B = -200mA$			-0.65	V
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -1.0A$ $I_B = -0.1A$			-1.2	V
Base–Emitter Turn–on Voltage	$V_{BE(ON)}$	I_C				

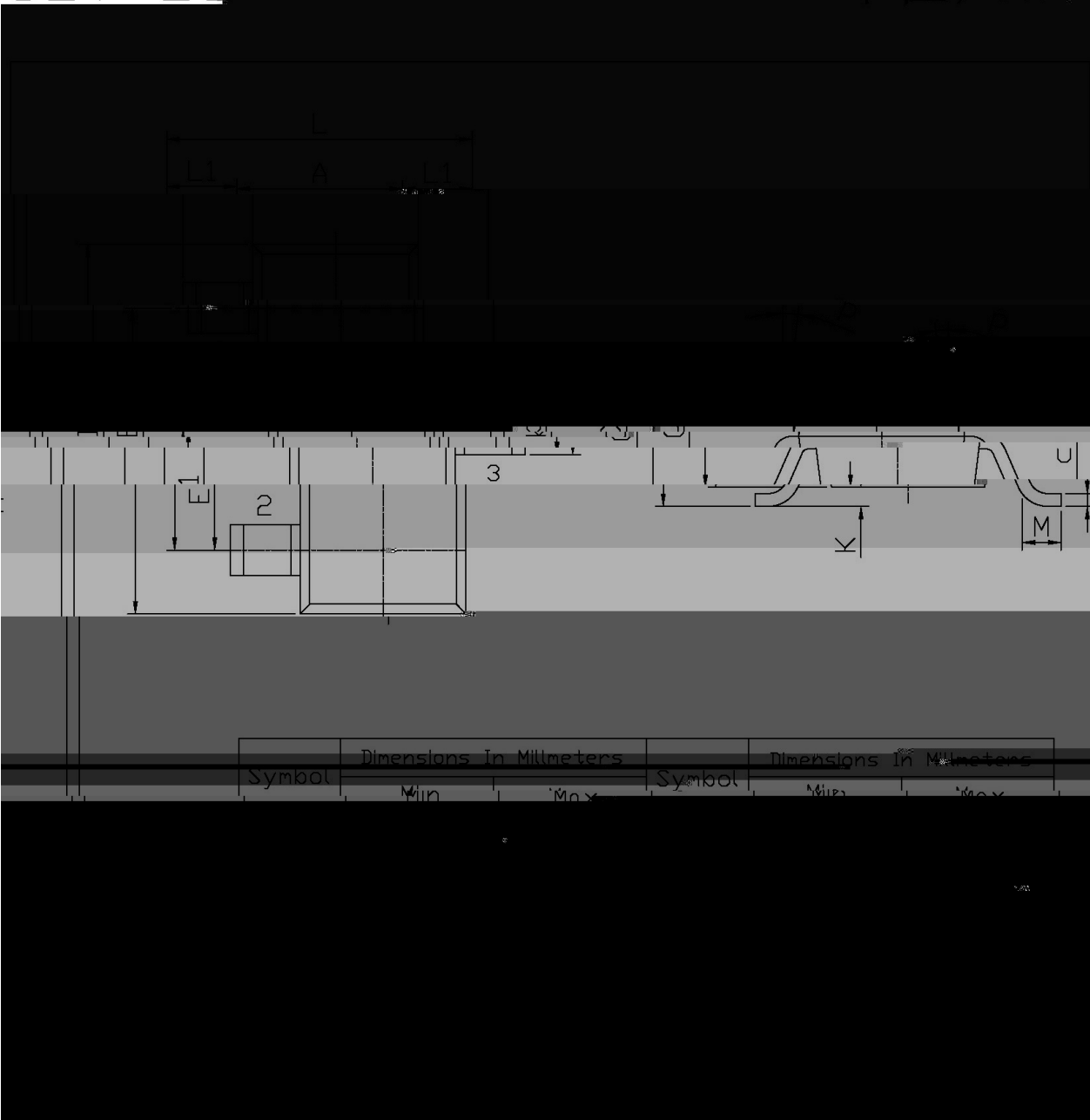
/ Electrical Characteristic Curve



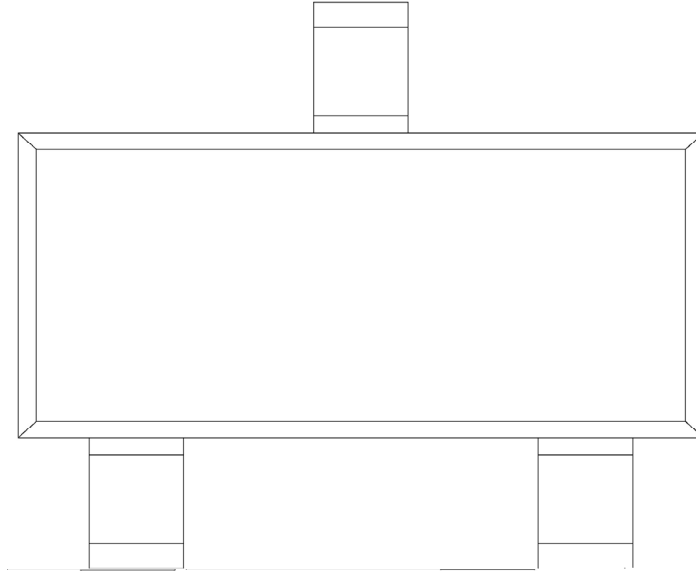
/ Package Dimensions

SOT-23

单位: mm



/ Marking Instructions



H

G3

Note:

