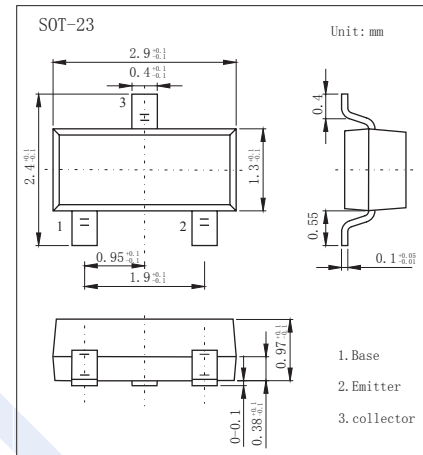


NPN Transistors

FMMT625 (KMMT625)

■ Features

- 3 A Peak Pulse Current
- Excellent HFE Characteristics Up To 3 A (pulsed)
- Extremely Low Saturation Voltage E.g. 8mV Typ.
- Extremely Low Equivalent On Resistance; $R_{CE(sat)}$



■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	150	V
Collector - Emitter Voltage	V_{CEO}	150	
Emitter - Base Voltage	V_{EBO}	5	
Collector Current - Continuous	I_C	1	A
Collector Current - Pulse (Note.1)	I_{CP}	3	
Base Current	I_B	500	mA
Power Dissipation	PD	625	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to 150	

Note.1: Pulse width=300ms. Duty cycle \leq 2%

NPN Transistors

FMMT625 (KMMT625)

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V _{CB0}	I _c = 100 μA, I _E = 0	150			V
Collector- emitter breakdown voltage	V _{CE0}	I _c = 10 mA, I _B = 0	150			
Emitter - base breakdown voltage	V _{EB0}	I _E = 100 μA, I _C = 0	5			
Collector-base cut-off current	I _{CB0}	V _{CB} = 130 V, I _E = 0			100	nA
Collector- emitter cut-off current	I _{CEs}	V _{CE} = 130 V, I _E = 0			100	
Emitter cut-off current	I _{EBO}	V _{EB} = 4V, I _C =0			100	
Collector-emitter saturation voltage	V _{CE(sat)}	I _c =100 mA, I _B =10mA (Note.1)			50	mV
		I _c =100 mA, I _B =1mA (Note.1)			200	
		I _c =1 A, I _B =50mA (Note.1)			300	
Base - emitter saturation voltage	V _{BE(sat)}	I _C = 1 A, I _B = 50mA (Note.1)			1	V
Base-emitter turn-on voltage	V _{BE(on)}	V _{CE} = 10V, I _C = 1 A (Note.1)			1	
DC current gain	h _{FE} (1)	V _{CE} = 10V, I _C = 10mA	200			
	h _{FE} (2)	V _{CE} = 10V, I _C = 200mA	300			
	h _{FE} (3)	V _{CE} = 10V, I _C = 1 A	30			
	h _{FE} (4)	V _{CE} = 10V, I _C = 3 A		15		
Turn-On Time	t _{on}	V _{CC} =50V, I _C =0.5A		160		ns
Turn-Off Time	t _{off}	I _{B1} =-I _{B2} =50mA		1500		
Collector output capacitance	C _{ob}	V _{CB} = 10V, f=1MHz			10	pF
Transition frequency	f _T	V _{CE} = 10V, I _C =50mA, f=100MHz	100			MHz

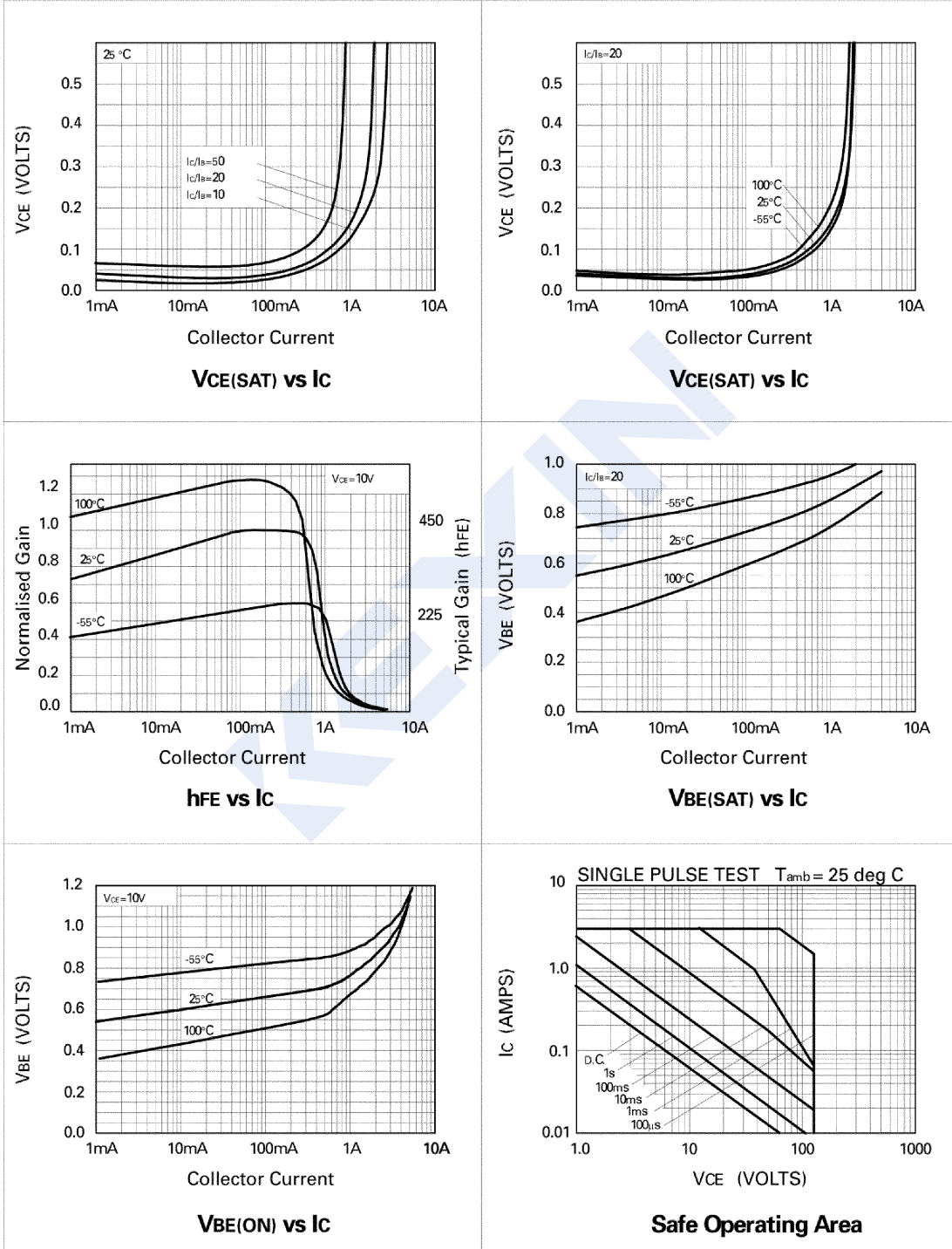
Note.1: Pulse width = 300us; duty cycle <2%

■ Marking

Marking	625
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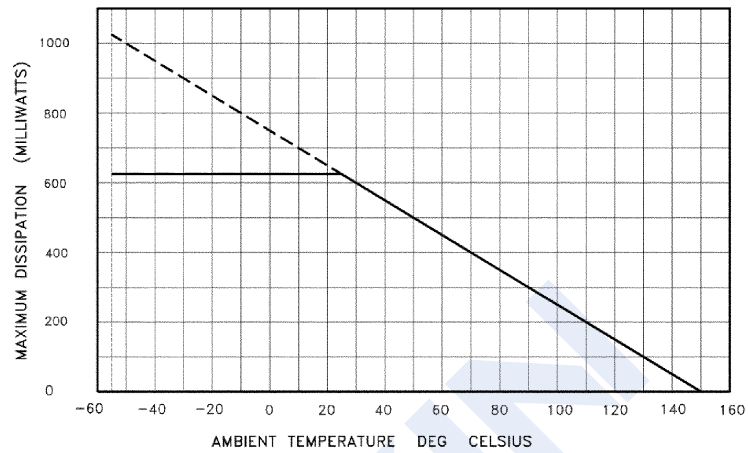
NPN Transistors FM625 (KMMT625)

■ Typical Characteristics

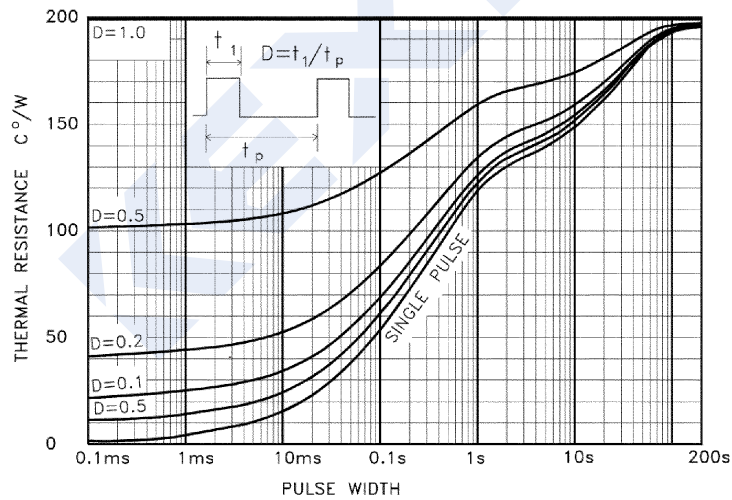


NPN Transistors FM625 (KMMT625)

■ Typical Characteristics



DERATING CURVE



MAXIMUM TRANSIENT THERMAL RESISTANCE

* Reference above figures, Devices were mounted on a 15mmx15mm ceramic substrate