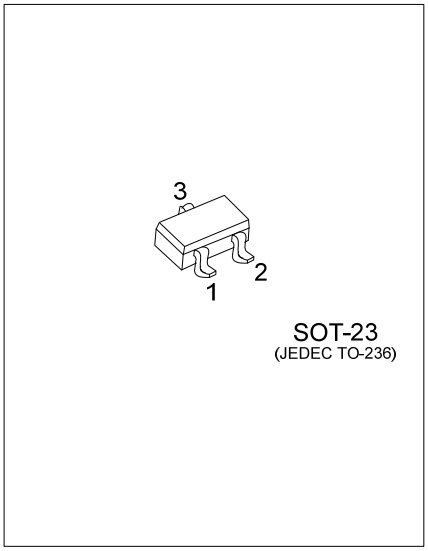
FMMT619

NPN SILICON TRANSISTOR

BIPOLAR POWER GENERAL PURPOSE TRANSISTOR



■ APPLICATIONS

* DC-DC / DC-AC Modules
* Regulator
* LED driver
* CCFL Backlighting Inverters

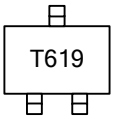
■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
FMMT619G-AE3-6-R	FMMT619G-AE3-6-R	SOT-23	B	E	C	Tape Reel

Note: Pin Assignment: B: Base E: Emitter C: Collector

FMMT619G-AE3-6-R (1)Packing Type (2)Pin Assignment (3)Package Type (4)Green Package	(1) R: Tape Reel (2) refer to Pin Assignment (3) AE3: SOT-23 (4) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING



■ ABSOLUTE MAXIMUM RATING (T_A=25°C unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	125	V
Collector-Emitter Voltage	V_{CEO}	125	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	1	A
Collector Peak Current	$I_{C(PEAK)}$	3	A
Base Current	I_B	0.5	A
Power Dissipation	P_D	0.35	W
Junction Temperature	T_J	+150	°C
Storage Temperature	T_{STG}	-40 ~ +150	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ THERMAL CHARACTERISTICS

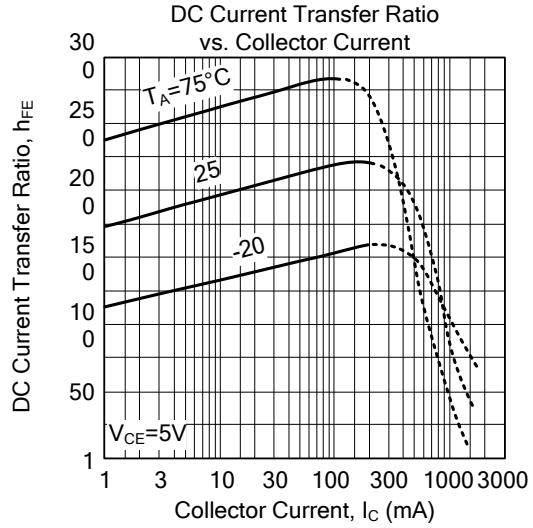
PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Case	θ_{JC}	110	°C/W

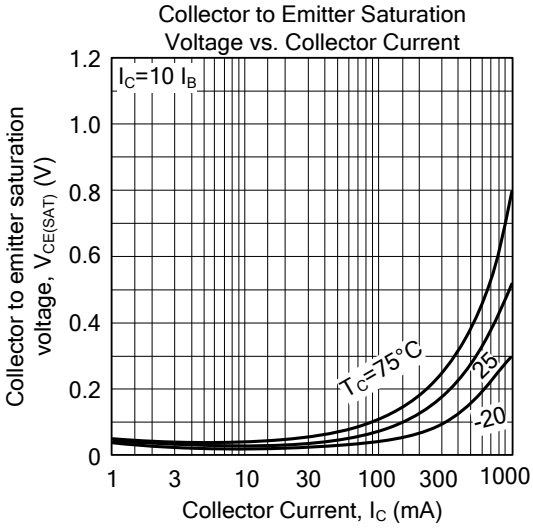
■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified)

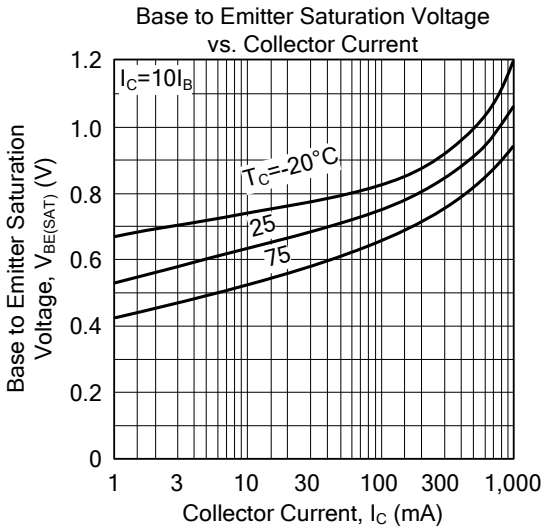
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
OFF CHARACTERISTICS						
Collector to Base Breakdown Voltage	BV_{CBO}	I_C=1mA, I_E=0	125			V
Collector to Emitter Breakdown Voltage	BV_{CEO}	I_C=10mA, R_{BE}=∞	125			V
Emitter to Base Breakdown Voltage	BV_{EBO}	I_E=1mA, I_C=0	5			V
Collector Cut-off Current	I_{CBO}	V_{CB}=120V, I_E=0			0.5	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=5V, I_C=0			0.1	μA
ON CHARACTERISTICS						
DC Current Gain	h_{FE1}	V_{CE}=5V, I_C=150mA (Note)	160		320	
	h_{FE2}	V_{CE}=5V, I_C=500mA (Note)	30			
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	I_C=500mA, I_B=50mA (Note)			0.5	V
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	I_C=600mA, I_B=50mA (Note)			1.0	V
Base-Emitter Voltage	V_{BE}	V_{CE}=5V, I_C=150mA (Note)			1.5	V
DYNAMIC CHARACTERISTICS						
Current Gain Bandwidth Product	f_T	V_{CE}=5V, I_C=150mA (Note)		140		MHz
Output Capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz		14		pF
SWITCHING CHARACTERISTICS						
Rise Time	t_R	V_{CC}=50V, I_C=0.5A, I_{B1}=I_{B2}=10mA, t_P=25μs, Duty Cycle≤1%		0.5		μs
Storage Time	t_S			1.5		
Fall Time	t_F			0.7		

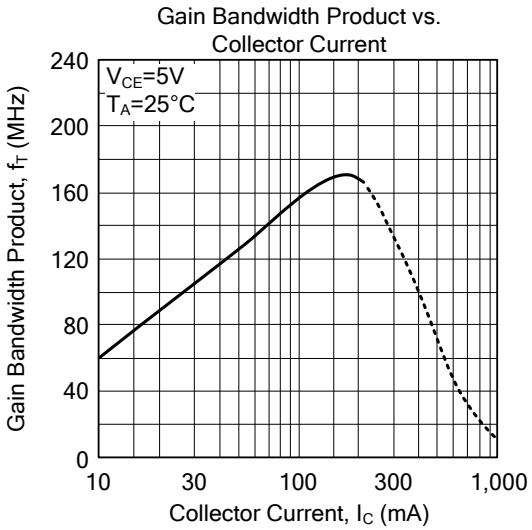
Note: Pulse test.

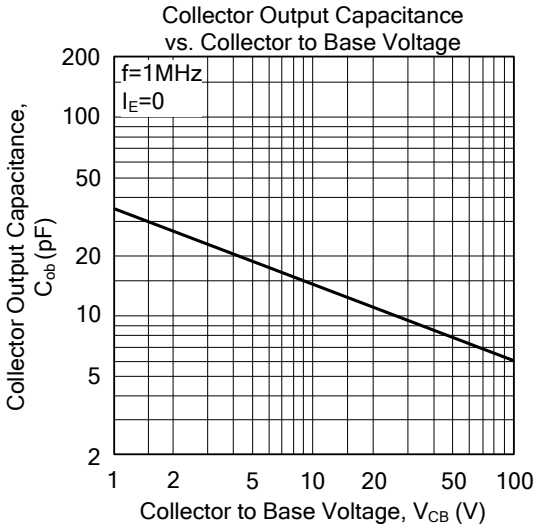
■ TYPICAL CHARACTERISTICS

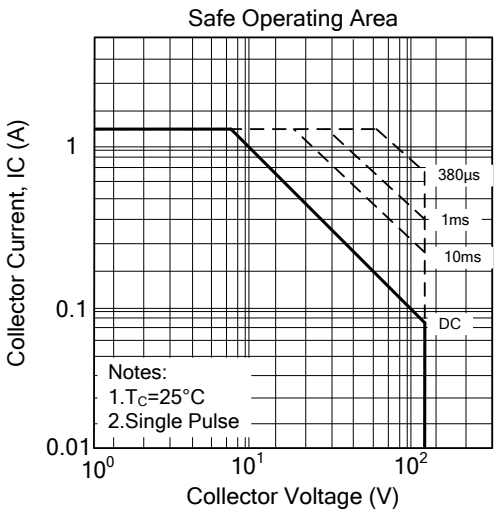












■ TYPICAL CHARACTERISTICS(Cont.)