

PNP Silicon Planar High Voltage Transistor

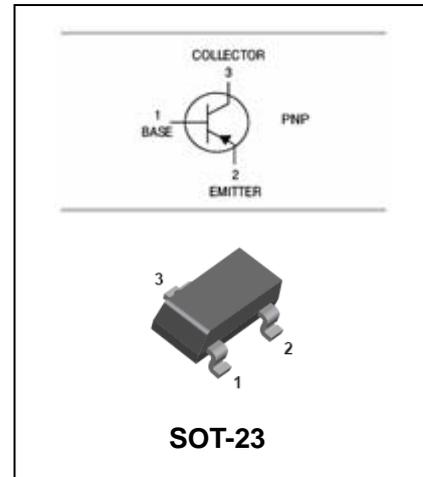
FMMT558

FEATURES

- Excellent h_{FE} characteristics at $I_C=100\text{mA}$.
- Complementary To FMMT458.
- Low saturation voltage.



Lead-free



ORDERING INFORMATION

Type No.	Marking	Package Code
FMMT558	558	SOT-23

MAXIMUM RATING @ $T_a=25^\circ\text{C}$ unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-400	V
V_{CEO}	Collector-Emitter Voltage	-400	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-150	mA
I_{CM}	Peak Pulse Current	-500	mA
I_B	Base Current	-200	mA
P_{tot}	Power Dissipation	500	mW
T_j, T_{stg}	Junction and Storage Temperature	-55 to +150	$^\circ\text{C}$



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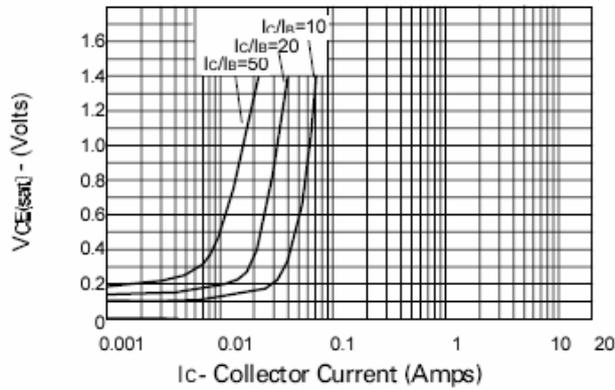
ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu A, I_E=0$	-400			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-10mA, I_B=0$	-400			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu A, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-320V, I_E=0$			-0.1	μA
Collector cut-off current	I_{CES}	$V_{CE}=-320V, I_B=0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-4V, I_C=0$			-0.1	μA
DC current gain	h_{FE}	$V_{CE}=-10V, I_C=-1mA$	100			
		$V_{CE}=-10V, I_C=-50mA$	100		300	
		$V_{CE}=-10V, I_C=-100mA$	15			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-20mA, I_B=-2mA$ $I_C=-50mA, I_B=-6mA$			-0.2 -0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-50mA, I_B=-5mA$			-0.9	V
Base-emitter turn on voltage	$V_{BE(on)}$	$I_C=-50mA, V_{CE}=-10V$			-0.9	V
Transition frequency	f_T	$V_{CE}=-20V, I_C=-10mA$ $f=20MHz$	50			MHz
Collector output capacitance	C_{ob}	$V_{CB}=-20V, f=1MHz$			5	pF
Switching times	t_{on}	$I_C=-50mA, V_{CC}=-100V$		95		nS
	t_{off}	$I_{B1}=5mA, I_{B2}=-10mA$		1600		

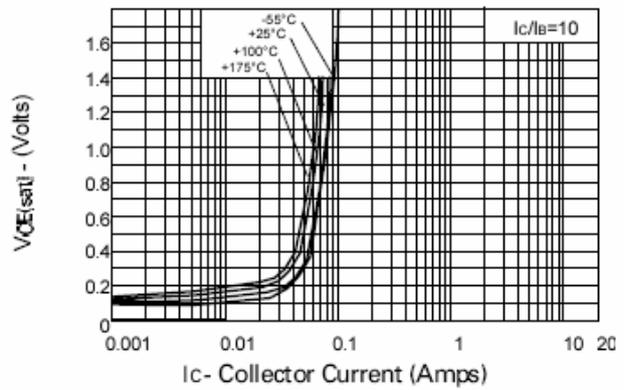
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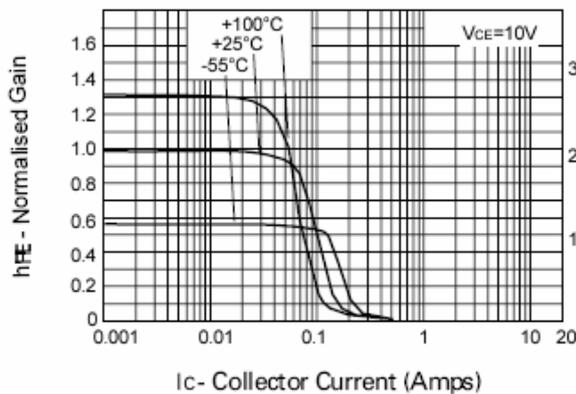
TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified



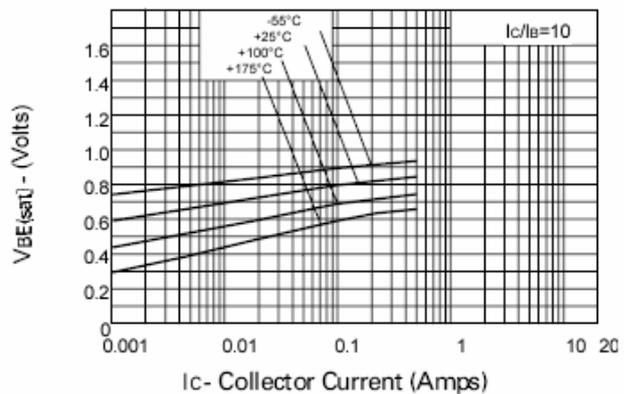
$V_{CE(sat)}$ v I_C



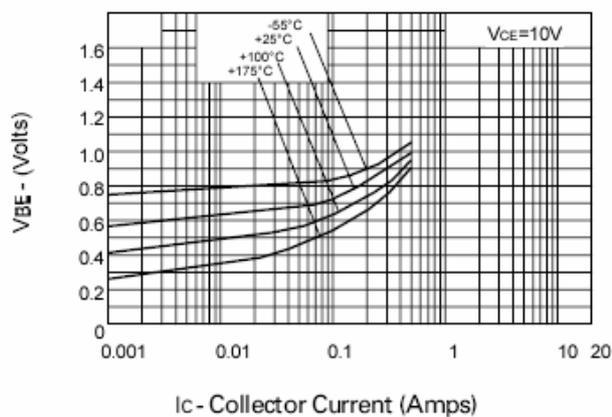
$V_{CE(sat)}$ v I_C



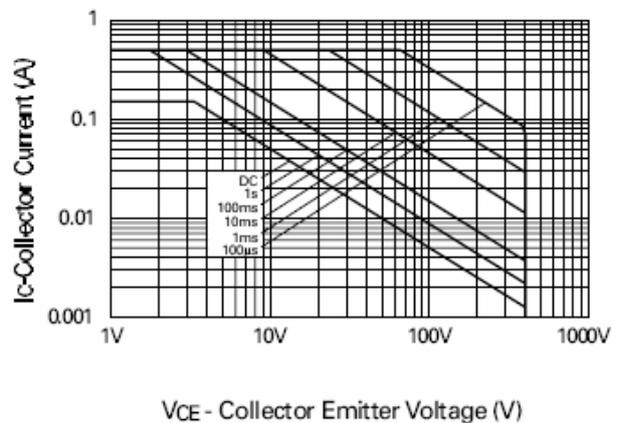
h_{FE} v I_C



$V_{BE(sat)}$ v I_C



$V_{BE(on)}$ v I_C



Safe Operating Area

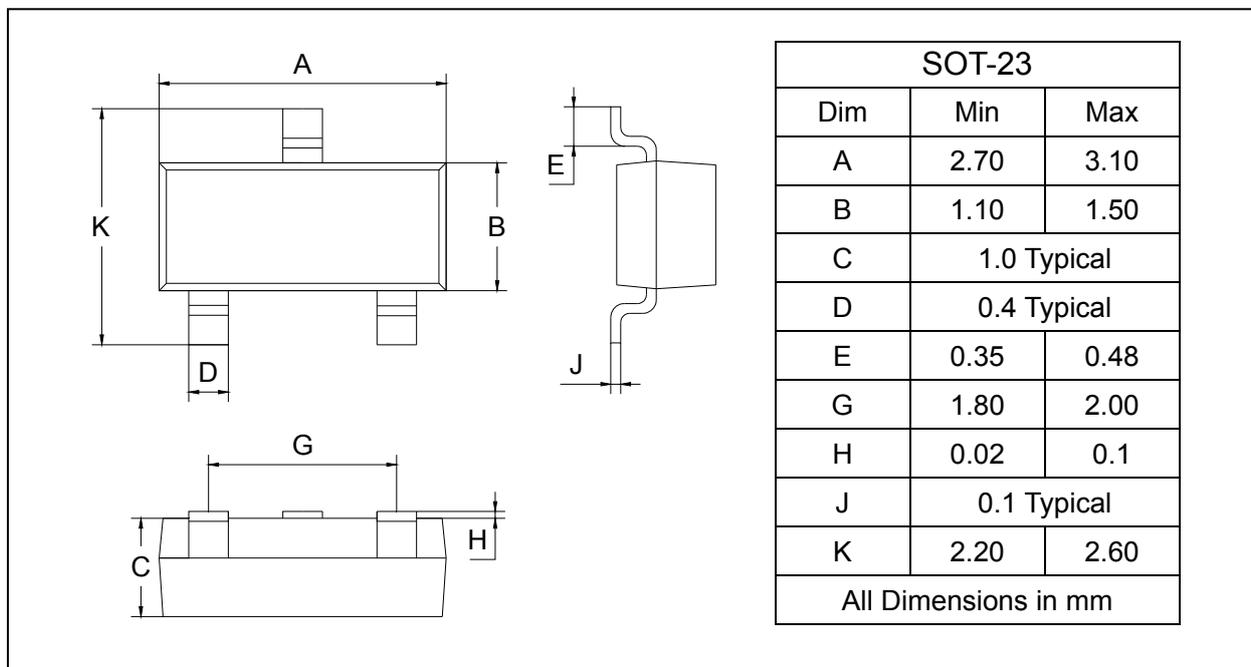
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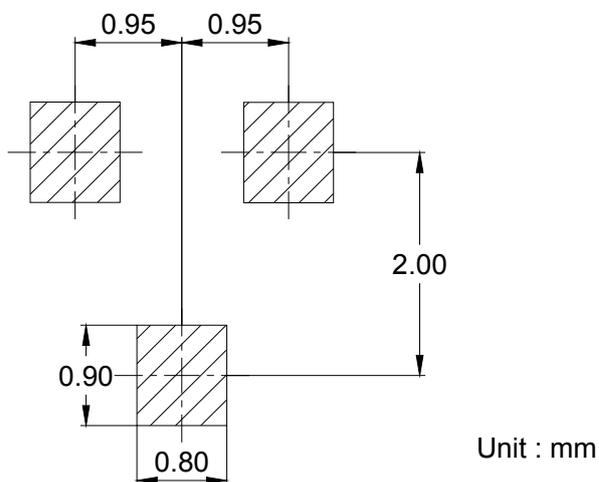
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
FMMT558	SOT-23	3000/Tape&Reel