

# SOT23 NPN SILICON PLANAR HIGH PERFORMANCE TRANSISTOR

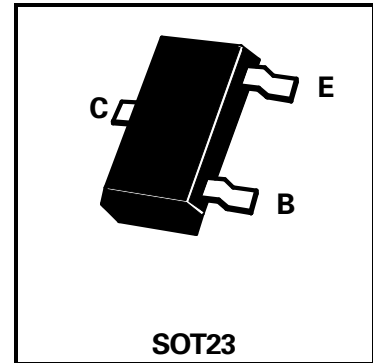
## FMMT455

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### FEATURES

- \* 140 Volt  $V_{CEO}$
- \* 1 Amp continuous current
- \*  $P_{tot} = 500$  mW

PARTMARKING DETAIL – 455



### ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	$V_{CBO}$	160	V
Collector-Emitter Voltage	$V_{CEO}$	140	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Peak Pulse Current	$I_{CM}$	2	A
Continuous Collector Current	$I_C$	1	A
Base Current	$I_B$	200	mA
Power Dissipation at $T_{amb}=25^\circ\text{C}$	$P_{tot}$	500	mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^\circ\text{C}$ ).

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	160		V	$I_C = 100\mu\text{A}$
Collector-Emitter Sustaining Voltage	$V_{CEO(sus)}$	140		V	$I_C = 10\text{mA}^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5		V	$I_E = 100\mu\text{A}$
Collector Cut-Off Current	$I_{CBO}$		0.1	$\mu\text{A}$	$V_{CB} = 140\text{V}$
Emitter Cut-Off Current	$I_{EBO}$		0.1	$\mu\text{A}$	$V_{EB} = 4\text{V}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		0.7	V	$I_C = 150\text{mA}, I_B = 15\text{mA}$
Static Forward Current Transfer Ratio	$h_{FE}$	100 10 Typ	300		$I_C = 150\text{mA}, V_{CE} = 10\text{V}^*$ $I_C = 1\text{A}, V_{CE} = 10\text{V}^*$
Transition Frequency	$f_T$	100		MHz	$I_C = 50\text{mA}, V_{CE} = 10\text{V}$ $f = 100\text{MHz}$
Output Capacitance	$C_{obo}$		15	pF	$V_{CB} = 10\text{V}, f = 1\text{MHz}$

\* Measured under pulsed conditions. Pulse width=300 $\mu\text{s}$ . Duty cycle  $\leq 2\%$

Spice parameter data is available upon request for this device

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## TYPICAL CHARACTERISTICS

