

# FMMT455TC Datasheet



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DiGi Electronics Part Number	FMMT455TC-DG
Manufacturer	<a href="#">Diodes Incorporated</a>
Manufacturer Product Number	FMMT455TC
Description	TRANS NPN 140V 1A SOT23-3
Detailed Description	Bipolar (BJT) Transistor NPN 140 V 1 A 100MHz 500 mW Surface Mount SOT-23-3



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## Purchase and inquiry

Manufacturer Product Number:

FMMT455TC

Series:

-

Transistor Type:

NPN

Voltage - Collector Emitter Breakdown (Max):

140 V

Current - Collector Cutoff (Max):

100nA (ICBO)

Power - Max:

500 mW

Operating Temperature:

-55°C ~ 150°C (TJ)

Package / Case:

TO-236-3, SC-59, SOT-23-3

Base Product Number:

FMMT455

Manufacturer:

Diodes Incorporated

Product Status:

Obsolete

Current - Collector (Ic) (Max):

1 A

Vce Saturation (Max) @ Ib, Ic:

700mV @ 15mA, 150mA

DC Current Gain (hFE) (Min) @ Ic, Vce:

100 @ 150mA, 10V

Frequency - Transition:

100MHz

Mounting Type:

Surface Mount

Supplier Device Package:

SOT-23-3

## Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8541.21.0075

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

# SOT23 NPN SILICON PLANAR HIGH PERFORMANCE TRANSISTOR

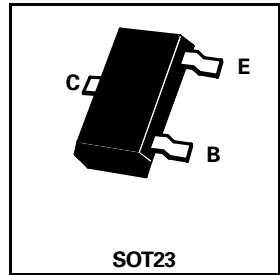
## FMMT455

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### FEATURES

- \* 140 Volt  $V_{CE0}$
- \* 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	$^\circ\text{C}$

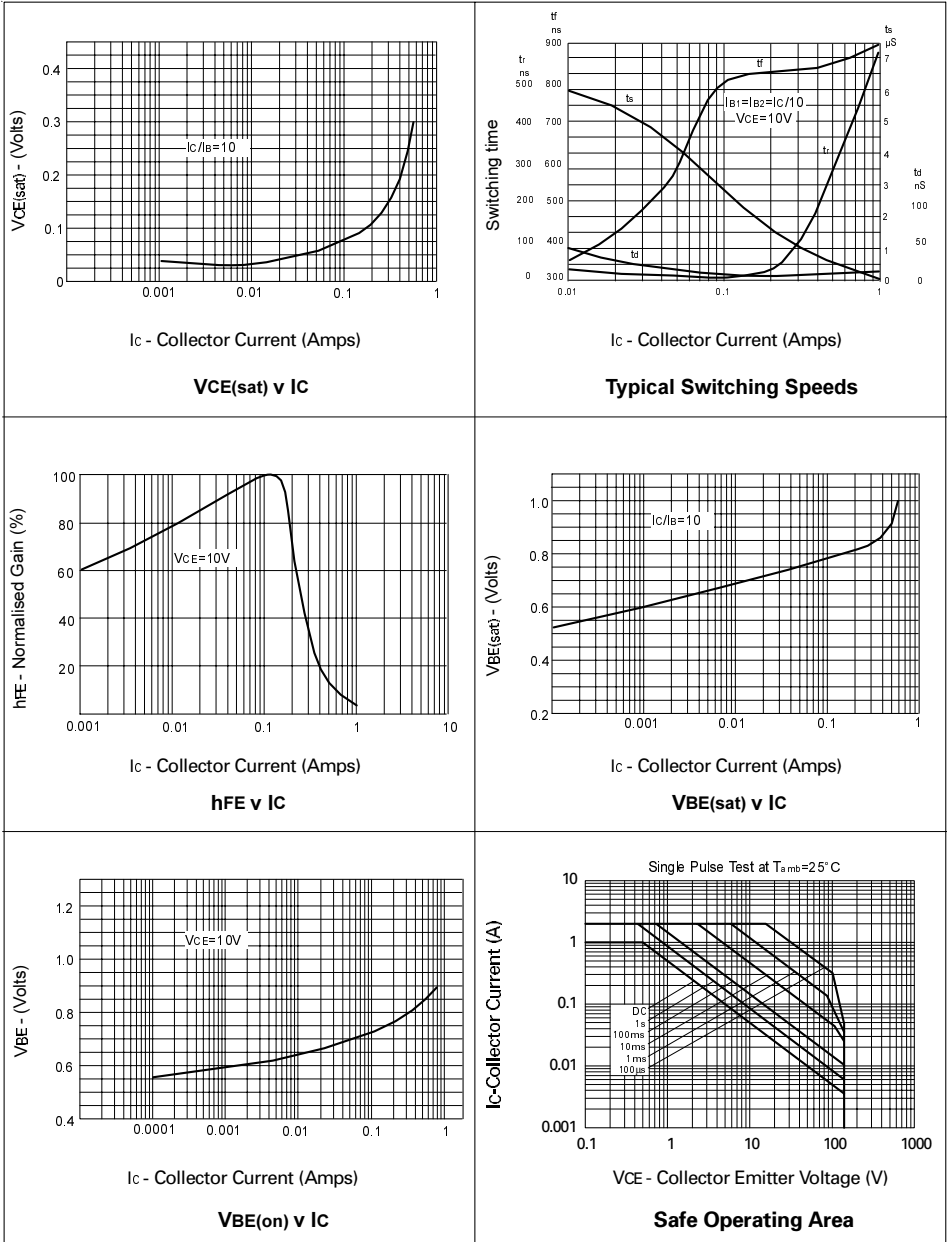
### ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^\circ\text{C}$ ).

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

## TYPICAL CHARACTERISTICS





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