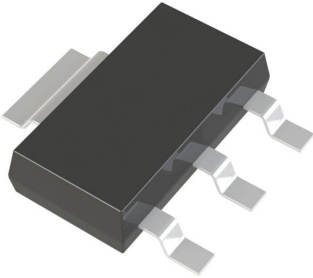


FZTA42TA Datasheet

www.digi-electronics.com



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	FZTA42TA-DG
Manufacturer	Diodes Incorporated
Manufacturer Product Number	FZTA42TA
Description	TRANS NPN 300V 0.5A SOT223-3
Detailed Description	Bipolar (BJT) Transistor NPN 300 V 500 mA 50MHz 2 W Surface Mount SOT-223-3



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.

Purchase and inquiry

Manufacturer Product Number:

FZTA42TA

Series:

-

Transistor Type:

NPN

Voltage - Collector Emitter Breakdown (Max):

300 V

Current - Collector Cutoff (Max):

100nA (ICBO)

Power - Max:

2 W

Operating Temperature:

-55°C ~ 150°C (TJ)

Package / Case:

TO-261-4, TO-261AA

Base Product Number:

FZTA42

Manufacturer:

Diodes Incorporated

Product Status:

Obsolete

Current - Collector (Ic) (Max):

500 mA

Vce Saturation (Max) @ Ib, Ic:

500mV @ 2mA, 20mA

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

40 @ 30mA, 10V

Frequency - Transition:

50MHz

Mounting Type:

Surface Mount

Supplier Device Package:

SOT-223-3

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Affected

HTSUS:

8541.29.0075

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

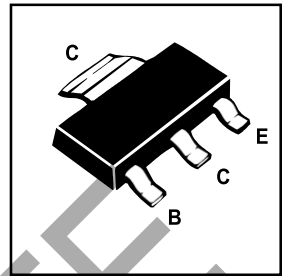
EAR99

**SOT223 NPN SILICON PLANAR
HIGH VOLTAGE TRANSISTOR****FZTA42****FEATURES**

- * Suitable for video output stages in TV sets and switch mode power supplies
- * High breakdown voltage

COMPLIMENTARY TYPE - FZTA92

PARTMARKING DETAIL - DEVICE TYPE IN FULL

**ABSOLUTE MAXIMUM RATINGS.**

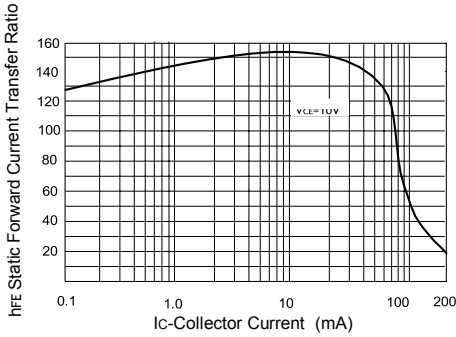
PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	300	V
Collector-Emitter Voltage	V_{CEO}	300	V
Emitter-Base Voltage	V_{EBO}	5	V
Base Current	I_B	100	mA
Continuous Collector Current	I_C	500	mA
Power Dissipation at $T_{amb}=25^{\circ}C$	P_{tot}	2	W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 to +150	$^{\circ}C$

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

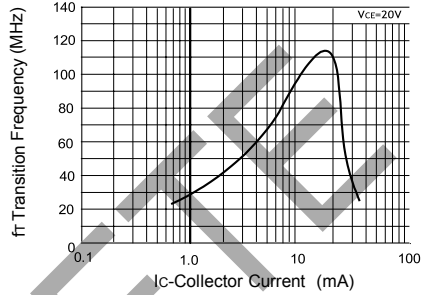
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	300			V	$I_C=100\mu A, I_E=0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	300			V	$I_C=1mA, I_B=0^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5			V	$I_E=100\mu A, I_C=0$
Collector Cut-Off Current	I_{CBO}			0.1	μA	$V_{CB}=200V, I_E=0$
Emitter Cut-Off Current	I_{EBO}			0.1	μA	$V_{EB}=5V, I_C=0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.5	V	$I_C=20mA, I_B=2mA$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			0.9	V	$I_C=20mA, I_B=2mA$
Static Forward Current Transfer Ratio	h_{FE}	25 40 40				$I_C=1mA, V_{CE}=10V^*$ $I_C=10mA, V_{CE}=10V^*$ $I_C=30mA, V_{CE}=10V^*$
Transition Frequency	f_T	50			MHz	$I_C=10mA, V_{CE}=20V$ $f=20MHz$
Output Capacitance	C_{obo}			6	pF	$V_{CB}=20V, f=1MHz$

* Measured under pulsed conditions. Pulse width=300 μs . Duty cycle \leq 2%
 For typical characteristics graphs see FMMTA42 datasheet.

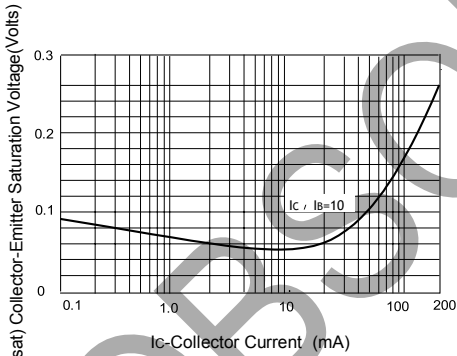
TYPICAL CHARACTERISTICS



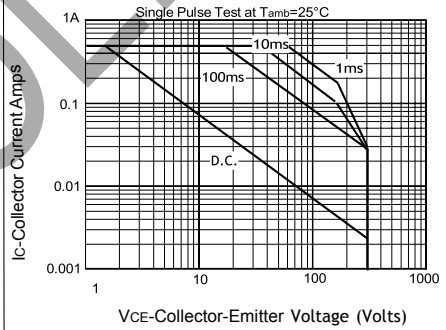
hFE vs IC



ft vs IC



$V_{CE}(sat)$ vs IC



Safe operating area

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