

FMMTA13TC Datasheet



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DiGi Electronics Part Number	FMMTA13TC-DG
Manufacturer	Diodes Incorporated
Manufacturer Product Number	FMMTA13TC
Description	TRANS NPN DARL 40V 0.3A SOT23-3
Detailed Description	Bipolar (BJT) Transistor NPN - Darlington 40 V 300 mA 330 mW Surface Mount SOT-23-3



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Purchase and inquiry

Manufacturer Product Number:

FMMTA13TC

Series:

-

Transistor Type:

NPN - Darlington

Voltage - Collector Emitter Breakdown (Max):

40 V

Current - Collector Cutoff (Max):

100nA

Power - Max:

330 mW

Operating Temperature:

-55°C ~ 150°C (TJ)

Package / Case:

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

Base Product Number:

FMMTA13

Manufacturer:

Diodes Incorporated

Product Status:

Obsolete

Current - Collector (Ic) (Max):

300 mA

Vce Saturation (Max) @ Ib, Ic:

900mV @ 100µA, 100mA

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

10000 @ 100mA, 5V

Frequency - Transition:

-

Mounting Type:

Surface Mount

Supplier Device Package:

SOT-23-3

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8541.21.0095

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

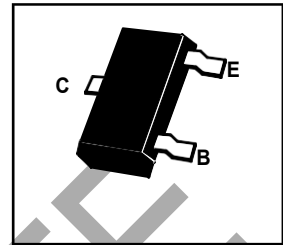
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SOT23 NPN SILICON PLANAR DARLINGTON TRANSISTORS

FMMTA12
FMMTA13
FMMTA14

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COMPLEMENTARY TYPES - FMMTA12 - NONE
 FMMTA13 - FMMTA63
 FMMTA14 - FMMTA64



PARTMARKING DETAILS - FMMTA12 - 3W
 FMMTA13 - 1M
 FMMTA14 - 1N

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	FMMTA12	FMMTA13/14	UNIT
Collector-Base Voltage	V_{CBO}		40	V
Collector-Emitter Voltage	V_{CEO}		40	V
Collector-Emitter Voltage	V_{CES}	20	40	V
Emitter-Base Voltage	V_{EBO}		10	V
Continuous Collector Current	I_C		300	mA
Power Dissipation at $T_{am} = 25^\circ C$	P_{tot}		330	mW
Operating and Storage Temperature Range	$T_j; T_{stg}$		-55 to +150	C

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

PARAMETER	SYMBOL	MIN.	MAX.	UNIT	CONDITIONS.
Collector-Emitter Breakdown Voltage	$V_{(BR)CES}$	20 40		V V	$I_C = 100\mu A, I_B = 0^*$ $I_C = 100\mu A, I_B = 0^*$
Collector Cut-Off Current	I_{CES}		100	nA	$V_{CB} = 15V, V_{BE} = 0$
Collector Cut-Off Current	I_{CBO}		100 100	nA nA	$V_{CB} = 15V, I_E = 0$ $V_{CB} = 30V, I_E = 0$
Emitter Cut-Off Current	I_{EBO}		100	nA	$V_{EB} = 10V, I_C = 0$
Static Forward Current Transfer Ratio	h_{FE}	20K 5K 10K 10K 20K			$I_C = 10mA, V_{CE} = 5V^*$ $I_C = 10mA, V_{CE} = 5V^*$ $I_C = 100mA, V_{CE} = 5V^*$ $I_C = 10mA, V_{CE} = 5V^*$ $I_C = 100mA, V_{CE} = 5V^*$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		1.0 0.9	V V	$I_C = 10mA, I_B = 0.01mA$ $I_C = 100mA, I_B = 0.1mA$
Base-Emitter On Voltage	$V_{BE(on)}$		1.4 2.0	V V	$I_C = 10mA, V_{CE} = 5V^*$ $I_C = 100mA, V_{CE} = 5V^*$

*Measured under pulsed conditions. Pulse width = 300 μs . Duty cycle \leq 2%. Spice parameter data is available upon request for these devices
 For typical graphs see FMMT38A datasheet

OBSOLETE - PART DISCONTINUED

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