ZUMT591TC Datasheet

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DiGi Electronics Part Number	ZUMT591TC-DG
Manufacturer	Diodes Incorporated
Manufacturer Product Number	ZUMT591TC
Description	TRANS PNP 60V 1A SOT323
Detailed Description	Bipolar (BJT) Transistor PNP 60 V 1 A 150MHz 500 m W Surface Mount SOT-323

Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

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Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
ZUMT591TC	Diodes Incorporated
Series:	Product Status:
-	Obsolete
Transistor Type:	Current - Collector (Ic) (Max):
PNP	1 A
Voltage - Collector Emitter Breakdown (Max):	Vce Saturation (Max) @ Ib, Ic:
60 V	600mV @ 100mA, 1A
Current - Collector Cutoff (Max):	DC Current Gain (hFE) (Min) @ Ic, Vce:
100nA	100 @ 500mA, 5V
Power - Max:	Frequency - Transition:
500 mW	150MHz
Operating Temperature:	Mounting Type:
-55°C ~ 150°C (TJ)	Surface Mount
Package / Case:	Supplier Device Package:
SC-70, SOT-323	SOT-323
Base Product Number:	
ZUMT591	

Environmental & Export classification

RoHS Status:	Moisture Sensitivity Level (MSL):
ROHS3 Compliant	1 (Unlimited)
REACH Status:	ECCN:
REACH Unaffected	EAR99
HTSUS:	
8541.21.0075	

SOT323 PNP SILICON PLANAR HIGH PERFORMANCE TRANSISTOR

ZUMT591

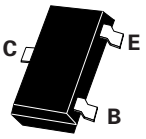
DRAFT SPECIFICATION ISSUE A – OCTOBER 94

FEATURES

* Extremely low saturation voltage
* 500mW power dissipation
* 1 Amp continuous collector current (I_C)

APPLICATIONS

* Ideally suited for space / weight critical applications



SOT323

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-80	V
Collector-Emitter Voltage	V_{CEO}	-60	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°C	P_{tot}	500	mW
Operating and Storage Temperature Range	T_j:T_{stg}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-80			V	I_C=-100μA, I_E=-0
Collector-Emitter Breakdown Voltage	$V_{CEO(sus)}$	-60			V	I_C=-10mA*, I_B=-0
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5			V	I_E=-100μA, I_C=-0
Collector Cut-Off Current	I_{CBO}			-100	nA	V_{CB}=-60V
Collector Cut-Off Current	I_{CES}			-100	nA	VCE=-60V
Emitter Cut-Off Current	I_{EBO}			-100	nA	V_{EB}=-4V, I_C=-0
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-0.3 -0.6	V V	I_C=-500mA, I_B=-50mA* I_C=-1A, I_B=-100mA*
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			-1.2	V	I_C=-1A, I_B=-100mA*
Base-Emitter Turn On Voltage	$V_{BE(on)}$			-1.0	V	IC=-1A, V_{CE}=-5V*

* Measured under pulsed conditions. Pulse width=300μs. Duty cycle®2%

ZUMT591

ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Static Forward Current Transfer Ratio	h_{FE}	100 100 80 15		300		I_C=-1mA, V_{CE}=-5V* I_C=-500mA, V_{CE}=-5V* I_C=-1A, V_{CE}=-5V* I_C=-2A, V_{CE}=-5V*
Transition Frequency	f_T	150			MHz	I_C=-50mA, V_{CE}=-10V* f=100MHz
Ouput Capacitance	C_{obo}			10	pF	V_{CB}=-10V, f=1MHz

* Measured under pulsed conditions. Pulse width=300μs. Duty cycle®2%

NOTE

This data is derived from development material and does not necessarily mean that the device will go into production

Europe	Americas	Asia Pacific	Corporate Headquarters
Zetex GmbH Streitfeldstraße 19 D-81673 München Germany	Zetex Inc 700 Veterans Memorial Hwy Hauppauge, NY 11788 USA	Zetex (Asia) Ltd 3701-04 Metroplaza Tower 1 Hing Fong Road, Kwai Fong Hong Kong	Zetex Semiconductors plc Zetex Technology Park Chadderton, Oldham, OL9 9LL United Kingdom
Telefon: (49) 89 45 49 49 0 Fax: (49) 89 45 49 49 49 europe.sales@zetex.com	Telephone: (1) 631 360 2222 Fax: (1) 631 360 8222 usa.sales@zetex.com	Telephone: (852) 26100 611 Fax: (852) 24250 494 asia.sales@zetex.com	Telephone (44) 161 622 4444 Fax: (44) 161 622 4446 hq@zetex.com

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