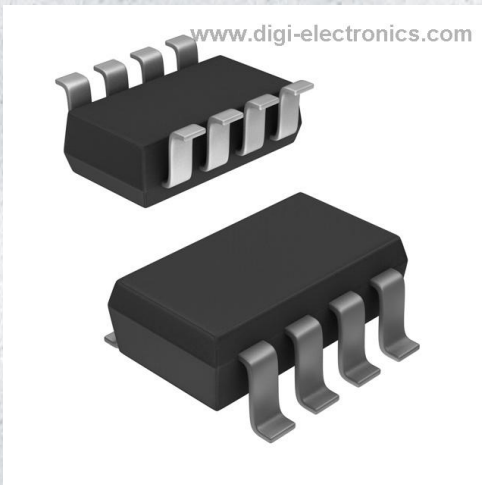


ZDT751TA Datasheet



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

DiGi Electronics Part Number	ZDT751TA-DG
Manufacturer	Diodes Incorporated
Manufacturer Product Number	ZDT751TA
Description	TRANS 2PNP 60V 2A SM8
Detailed Description	Bipolar (BJT) Transistor Array 2 PNP (Dual) 60V 2A 1 40MHz 2.75W Surface Mount SM8



Tel: +00 852-30501935

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Purchase and inquiry

Manufacturer Product Number:

ZDT751TA

Series:

-

Transistor Type:

2 PNP (Dual)

Voltage - Collector Emitter Breakdown (Max):

60V

Current - Collector Cutoff (Max):

100nA (ICBO)

Power - Max:

2.75W

Operating Temperature:

-55°C ~ 150°C (TJ)

Package / Case:

SOT-223-8

Base Product Number:

ZDT751

Manufacturer:

Diodes Incorporated

Product Status:

Active

Current - Collector (Ic) (Max):

2A

Vce Saturation (Max) @ Ib, Ic:

500mV @ 200mA, 2A

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

100 @ 500mA, 2V

Frequency - Transition:

140MHz

Mounting Type:

Surface Mount

Supplier Device Package:

SM8

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8541.29.0075

Moisture Sensitivity Level (MSL):

1 (Unlimited)

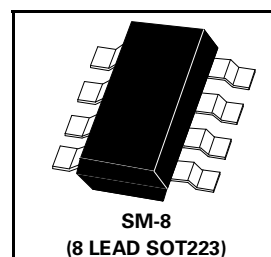
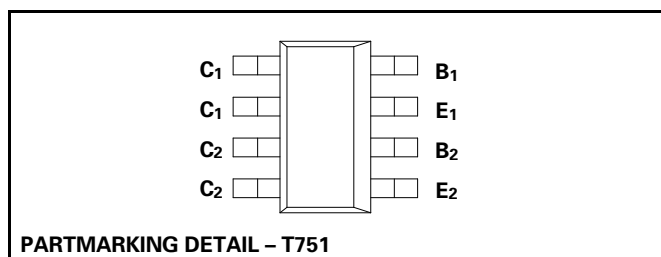
ECCN:

EAR99

SM-8 DUAL PNP MEDIUM POWER TRANSISTORS

ISSUE 1 - AUGUST 1997

ZDT751



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}	-6	A
Continuous Collector Current	I_C	-2	A
Operating and Storage Temperature Range	T_j, T_{stg}	-55 to +150	°C

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	VALUE	UNIT
Total Power Dissipation at $T_{amb} = 25^\circ\text{C}^*$ Any single die "on" Both die "on" equally	P_{tot}	2.25 2.75	W W
Derate above 25°C^* Any single die "on" Both die "on" equally		18 22	mW/°C mW/°C
Thermal Resistance - Junction to Ambient* Any single die "on" Both die "on" equally		55.6 45.5	°C/W °C/W

* The power which can be dissipated assuming the device is mounted in a typical manner on a PCB with copper equal to 2 inches square.



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ZDT751

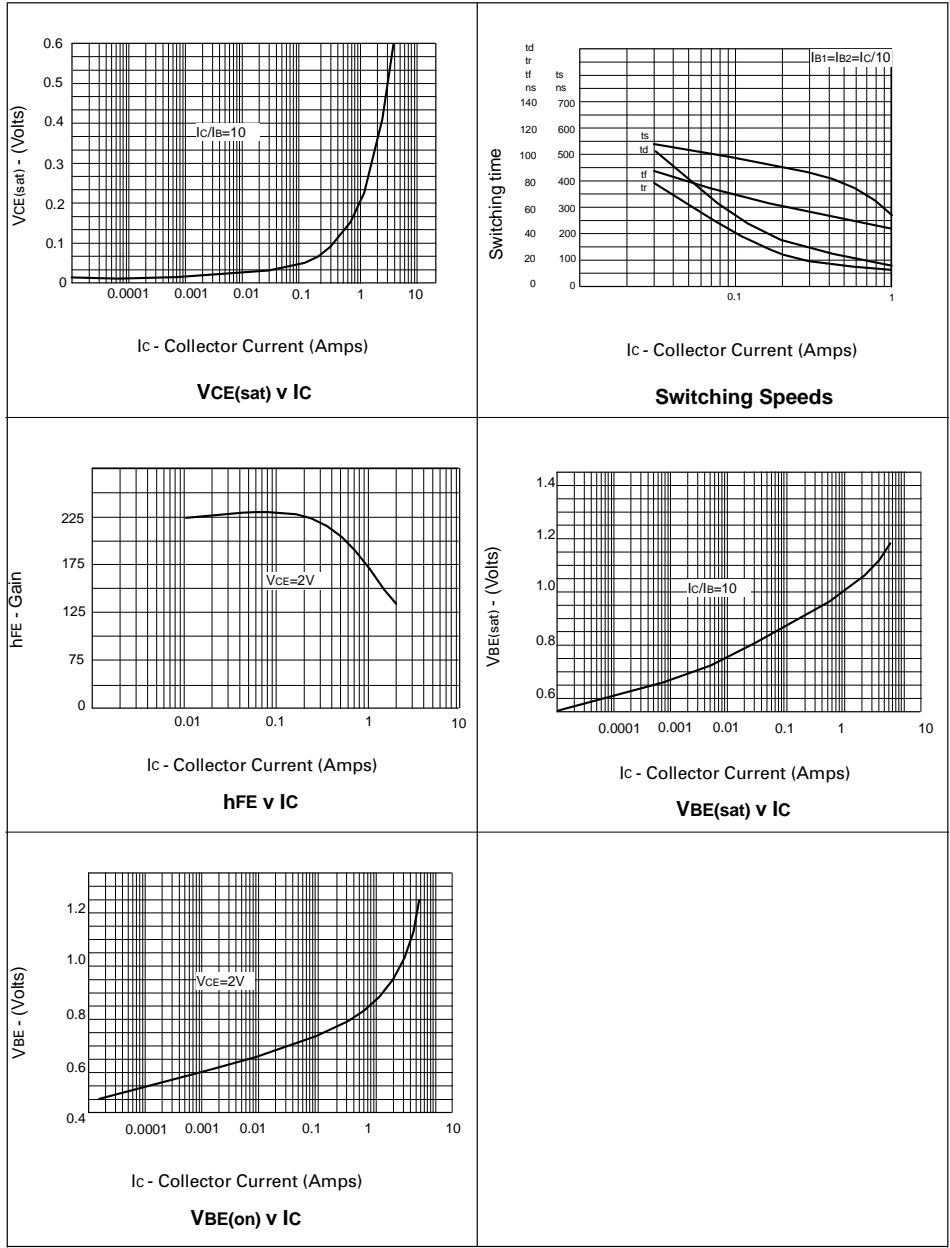
ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}\text{C}$ unless otherwise stated).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-80			V	$I_C = -100\mu\text{A}$, $I_E = 0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-60			V	$I_C = -10\text{mA}$, $I_B = 0^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5			V	$I_E = -100\mu\text{A}$, $I_C = 0$
Collector Cutoff Current	I_{CBO}			-0.1 -10	μA μA	$V_{CB} = -60\text{V}$ $V_{CB} = -60\text{V}$, $T_{amb} = 100^{\circ}\text{C}$
Emitter Cutoff Current	I_{EBO}			-0.1	μA	$V_{EB} = -4\text{V}$, $I_E = 0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.15 -0.28	-0.3 -0.5	V V	$I_C = 1\text{A}$, $I_B = -100\text{mA}^*$ $I_C = 2\text{A}$, $I_B = -200\text{mA}^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-0.9	-1.25	V	$I_C = 1\text{A}$, $I_B = -100\text{mA}^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$		-0.8	-1	V	$I_C = -1\text{A}$, $V_{CE} = -2\text{V}^*$
Static Forward Current Transfer Ratio	h_{FE}	70 100 80 40	200 200 170 80	300		$I_C = -50\text{mA}$, $V_{CE} = -2\text{V}^*$ $I_C = -500\text{mA}$, $V_{CE} = -2\text{V}^*$ $I_C = -1\text{A}$, $V_{CE} = -2\text{V}^*$ $I_C = -2\text{A}$, $V_{CE} = -2\text{V}^*$
Transition Frequency	f_T	100	140		MHz	$I_C = -100\text{mA}$, $V_{CE} = -5\text{V}$ $f = 100\text{MHz}$
Output Capacitance	C_{obo}			30	pF	$V_{CB} = -10\text{V}$ $f = 1\text{MHz}$
Switching Times	t_{on}		40		ns	$I_C = -500\text{mA}$, $V_{CC} = -10\text{V}$ $I_{B1} = I_{B2} = -50\text{mA}$
	t_{off}		450		ns	

*Measured under pulsed conditions. Pulse width=300 μs . Duty cycle $\leq 2\%$

ZDT751

TYPICAL CHARACTERISTICS



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