



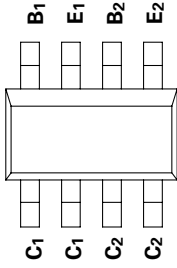
**THE DATASHEET OF
ZDT619TA**



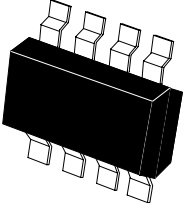
SM-8 DUAL NPN MEDIUM POWER HIGH GAIN TRANSISTORS

ISSUE 1 - NOVEMBER 1995

ZDT619



PARTMARKING DETAIL - T619



**SM-8
(8 LEAD SOT223)**

ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	MIN	MAX
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	50	
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	50	
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5	
Collector Cutoff Current	I_{CBO}		
Emitter Cutoff Current	I_{EBO}		
Collector Emitter Cutoff Current	I_{CES}		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		
Base-Emitter Turn-On Voltage	$V_{BE(on)}$		
Static Forward Current Transfer Ratio	h_{FE}	20	30
		20	10
Transition Frequency	f_T		
Output Capacitance	C_{obo}		
Turn-On Time	t_{on}		
Turn-Off Time	t_{off}		

*Measured under pulsed conditions. Pulse

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	50	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	$^{\circ}C$

THERMAL CHARACTERISTICS

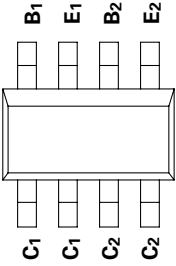
PARAMETER	SYMBOL	VALUE	UNIT
Total Power Dissipation at $T_{amb} = 25^{\circ}C$ * Any single die "on" Both die "on" equally	P_{tot}	2 2.5	W W
Derate above $25^{\circ}C$ * Any single die "on" Both die "on" equally		16 20	mW/ $^{\circ}C$ mW/ $^{\circ}C$
Thermal Resistance - Junction to Ambient* Any single die "on" Both die "on" equally		62.5 50	$^{\circ}C/W$ $^{\circ}C/W$

* 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.

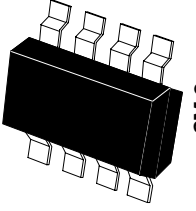
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Base-Emitter Saturation Voltage	$V_{BE(sat)}$		
Base-Emitter Turn-On Voltage	$V_{BE(on)}$		
Static Forward Current Transfer Ratio	h_{FE}	20 30 20 10	
Transition Frequency	f_T		10
Output Capacitance	C_{obo}		
Turn-On Time	t_{on}		
Turn-Off Time	t_{off}		

*Measured under pulsed conditions. Pulse

ZDT619

TYPICAL CHARACTERISTICS

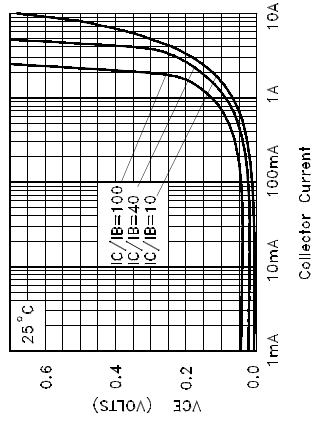


FIG. 1 V_{CE(SAT)} VS I_C

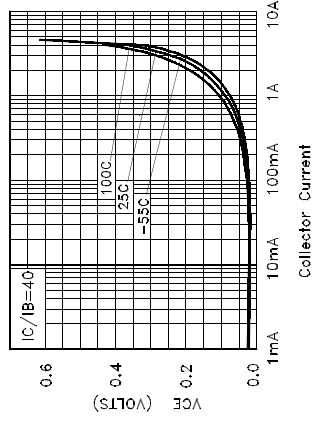


FIG. 2 V_{CE(SAT)} VS I_C

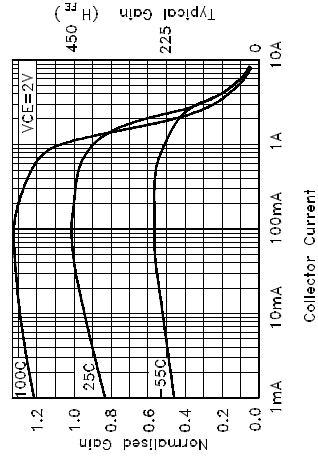


FIG. 3 H_{FE} VS I_C

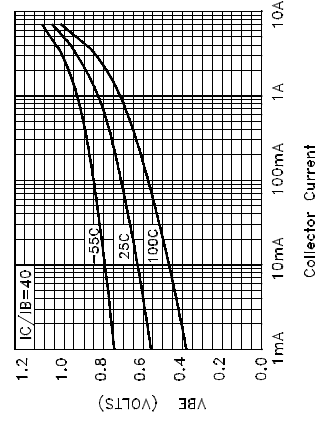


FIG. 4 V_{BE(SAT)} VS I_C

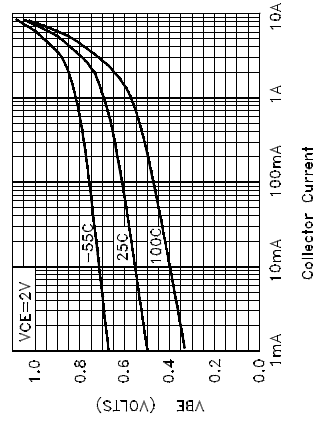


FIG. 5 V_{BE(ON)} VS I_C

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