

NPN SILICON POWER TRANSISTORS

- SGS-THOMSON PREFERRED SALESTYPES
- LOW COLLECTOR-EMITTER SATURATION VOLTAGE
- FAST SWITCHING SPEED

APPLICATIONS

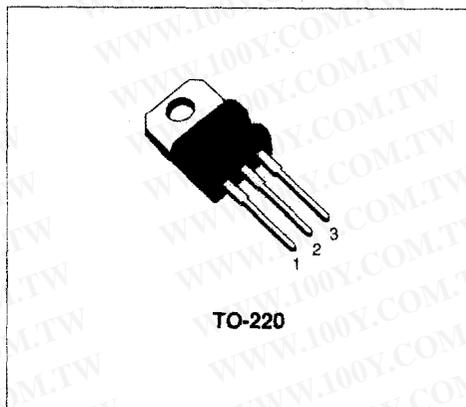
- GENERAL PURPOSE SWITCHING
- GENERAL PURPOSE AMPLIFIER

DESCRIPTION

The D44H8, and D44H11 are silicon multi-epitaxial planar NPN transistors mounted in Jedec TO-220 plastic package.

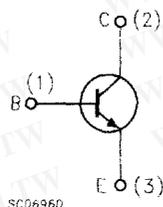
They are intended for various switching and general purpose applications.

D44H8, D44H11 are complementary with D45H8, D45H11.



勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

INTERNAL SCHEMATIC DIAGRAM



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value		Unit
		D44H8	D44H11	
V_{CE0}	Collector-Emitter Voltage ($I_B = 0$)	60	80	V
V_{EB0}	Emitter-Base Voltage ($I_C = 0$)	5		V
I_C	Collector Current	10		A
I_{CM}	Collector Peak Current	20		A
P_{tot}	Total Dissipation at $T_c \leq 25^\circ\text{C}$	50		W
T_{stg}	Storage Temperature	-65 to 150		$^\circ\text{C}$
T_j	Max. Operating Junction Temperature	150		$^\circ\text{C}$

THERMAL DATA

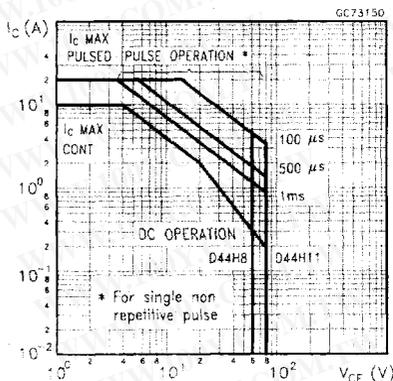
$R_{thj-case}$	Thermal Resistance Junction-case	Max	2.5	$^{\circ}C/W$
----------------	----------------------------------	-----	-----	---------------

ELECTRICAL CHARACTERISTICS ($T_{case} = 25^{\circ}C$ unless otherwise specified)

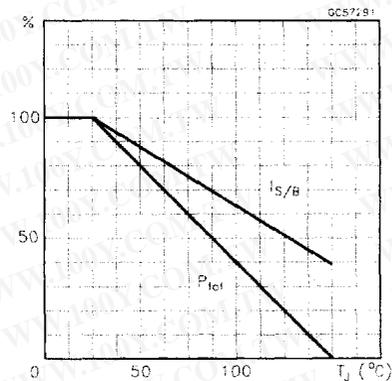
Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{CBO}	Collector Cut-off Current ($I_E = 0$)	$V_{CB} = \text{rated } V_{CEO}$			10	μA
I_{EBO}	Emitter Cut-off Current ($I_C = 0$)	$V_{EB} = 5V$			100	μA
$V_{CE(sus)}^*$	Collector-Emitter Sustaining Voltage	$I_C = 100 \text{ mA}$ for D44H8 for D44H11	60 80			V V
$V_{CE(sat)}^*$	Collector-Emitter Saturation Voltage	$I_C = 8 \text{ A}$ $I_B = 0.4 \text{ A}$			1	V
$V_{BE(sat)}^*$	Base-Emitter Saturation Voltage	$I_C = 8 \text{ A}$ $I_B = 0.8 \text{ A}$			1.5	V
h_{FE}^*	DC Current Gain	$I_C = 2 \text{ A}$ $V_{CE} = 1 \text{ V}$ $I_C = 4 \text{ A}$ $V_{CE} = 1 \text{ V}$	60 40			

* Pulsed: Pulse duration = 300 μs , duty cycle $\leq 2\%$

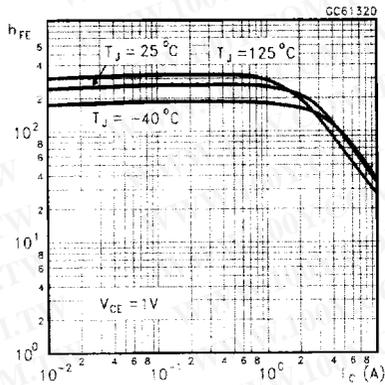
Safe Operating Area



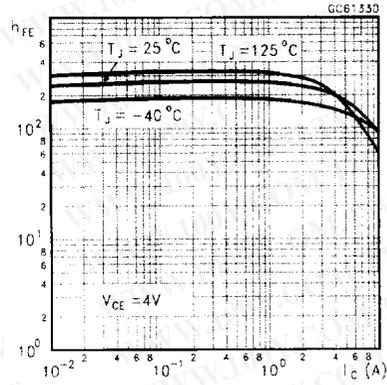
Derating Curves



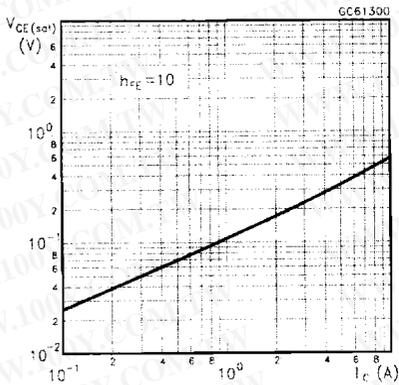
DC Current Gain



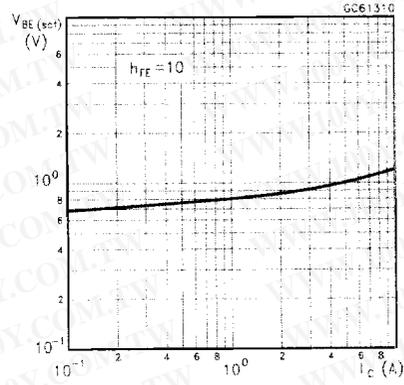
DC Current Gain



Collector-Emitter Saturation Voltage



Base-Emitter Saturation Voltage



勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)