WR0584 Silicon NPN transistor in a TO-251 Plastic Package.

Low $V_{CE(sat)}$, high current and high f_T, excellent linearity of h_{FE}, fast switching time.

Relay drivers, high-speed inverters, and other general high-current switching applications.

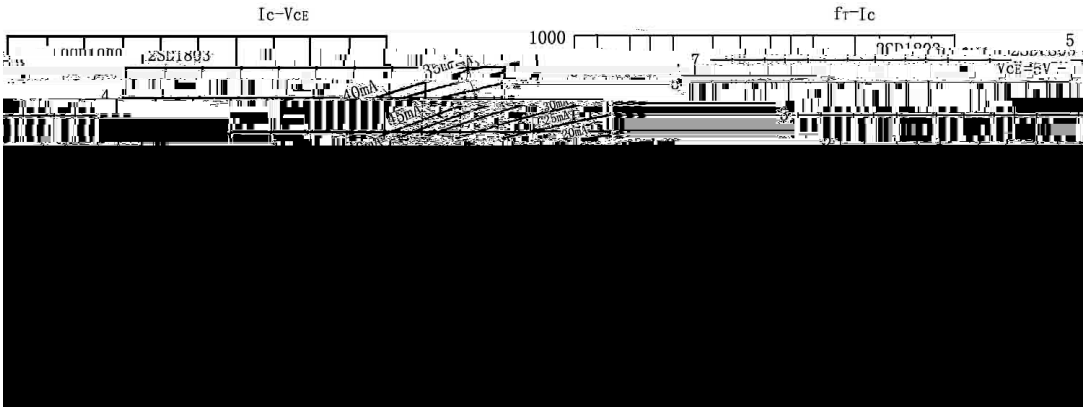
/ Absolute Maximum Ratings(Ta=25)

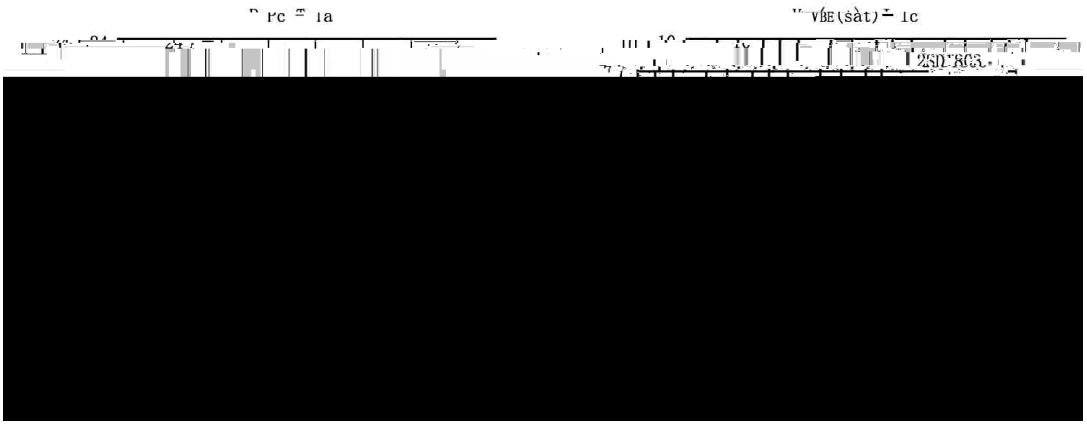
v ̈Ω Parameter	ϒ N Symbol	̈ΩËö Rating	D Ƕ Unit
Collector to Base Voltage	V_{CBO}	60	V
Collector to Emitter Voltage	V_{CEO}	50	V
Emitter to Base Voltage	V_{EBO}	6	V
Collector Current - Continuous	I_C	5	A
Collector Current – Continuous(Pulse)	I_{CP}	8	A
Collector Power Dissipation	P_C	1.0	W
Collector Power Dissipation	P_C(Tc=25)	20	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

/ Electrical Characteristics(Ta=25)

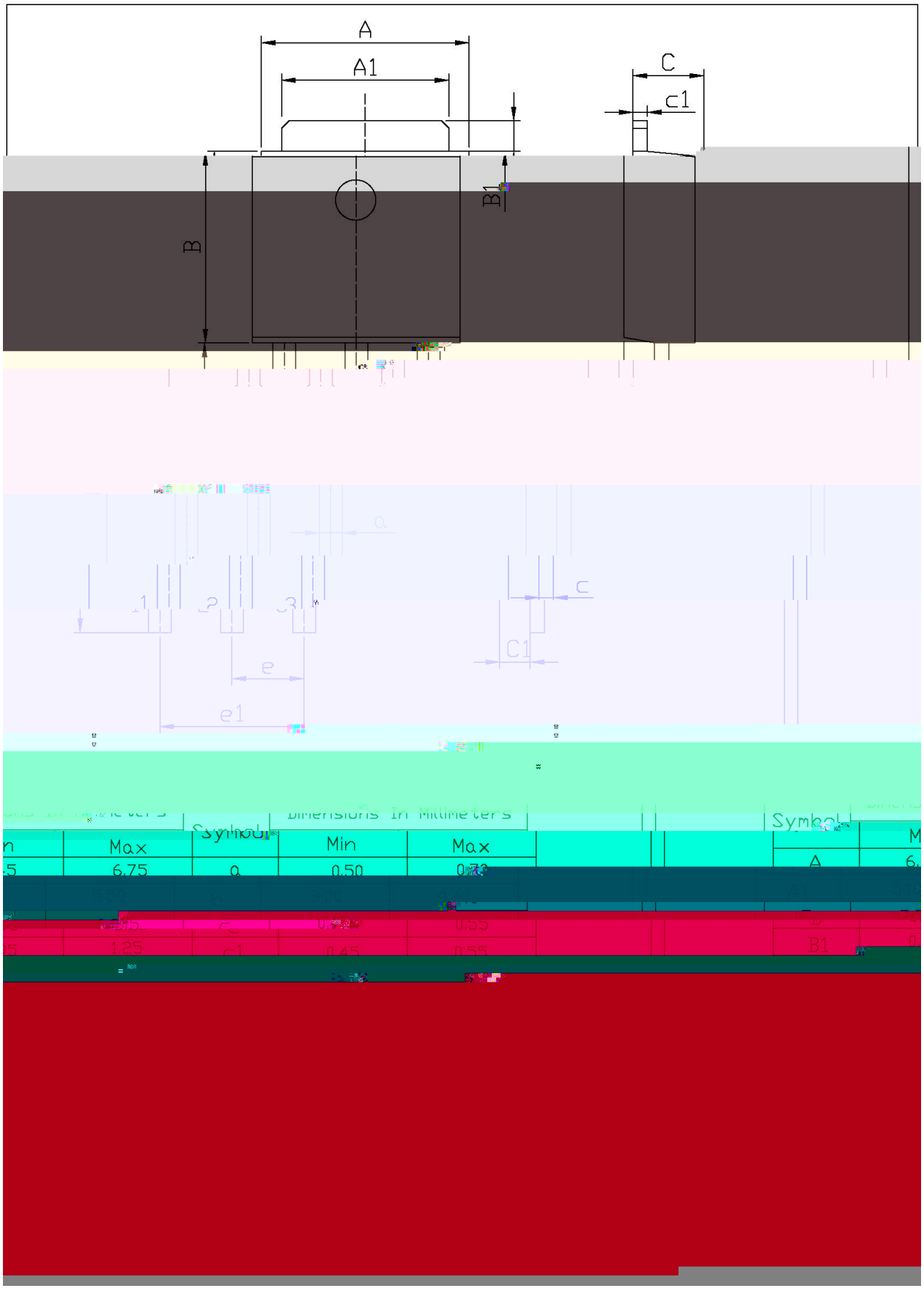
v ̈Ω Parameter	ϒ N Symbol	ǂ ː† ţ Test Conditions	ώ ņ Ëö Min	Ɛ ʒ Ëö Typ	ώ ᶻ Ëö Max	D Ƕ Unit
Collector to Base Breakdown Voltage	V_{CBO}	I_C=10μA I_E=O	60			V
Collector to Emitter Breakdown Voltage	V_{CBO}	I_C=1mA R_{BE}=∞	50			V
Emitter to Base Breakdown Voltage	V_{EBO}	I_E=10μA I_C=0	6			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=40V I_E=0			1.0	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=4.0V I_C=0			1.0	μA
DC Current Gain	$h_{FE(1)}$	V_{CE}=2.0V I_C=0.5A	70		400	
	$h_{FE(2)}$	V_{CE}=2.0V I_C=4.0A	35			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=3.0A I_B=0.15A		0.22	0.4	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=3.0A I_B=0.15A		0.95	1.3	V
Transition Frequency	f_T	V_{CE}=5.0V I_C=1.0A		180		MHZ
Collector output capacitance	C_{ob}	V_{CB}=10V f=1MH$_Z$		40		pF
Turn-On Time	t_{on}	I_C=10I_{B1}=-10I_{B2}=2.0A		50		ns
Storage Time	t_{stg}			500		ns
Fall Time	t_f			20		ns

/ Electrical Characteristic Curve



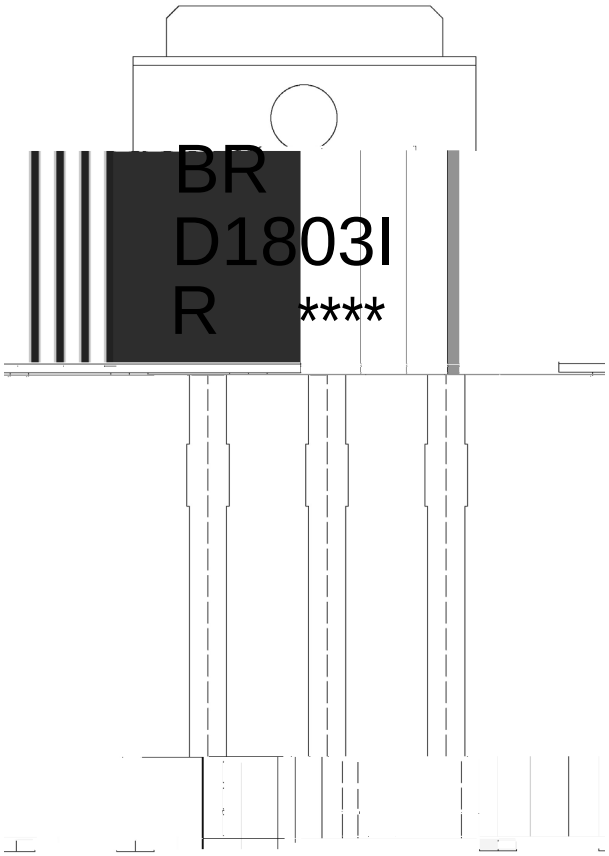


/ Package Dimensions



Symbol	Dimensions In Millimeters		Symbol	
	Min	Max		
A	6.00	6.75	A	6.
a	0.50	0.70	A1	5.0
B	5.00	5.70	B	
c	0.40	0.55	B1	0
c1	0.45	0.55		

/ Marking Instructions



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Note:

BR: Company Code

D1803I: Product Type.

R: h_{FE} Classifications Symbol

****: Lot No. Code, code change with Lot No.

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