2SC2335

Rev.H Oct.-2018

DATA SHEET

/ Descriptions

WR0553 Ṃ Ṃ Ꝉ QSQ Æ Ṁ ч s ‖ ᒣ Silicon NPN transistor in a TO-220 Plastic Package.

/ Features

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low collector saturation voltage, fast switching speed, wide base reverse-bias SOA.

/ Applications

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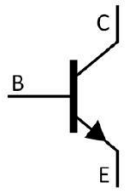
High-speed high-voltage converters, and high-frequency power amplifiers.

/ Equivalent Circuit



/ Pinning

PIN1 χ Base PIN 2 χ Collector PIN 3 χ Emitter

/ h_{FE} Classifications & Marking

ȣ м ᒣ ب ˝ See Marking Instructions.

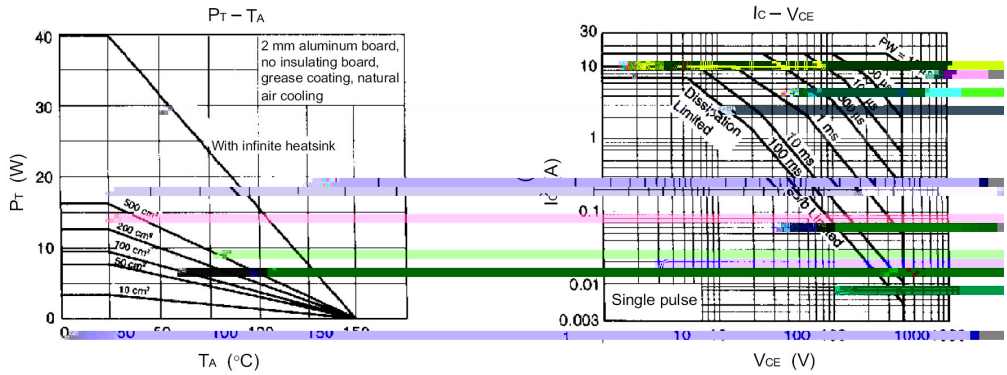
/ Absolute Maximum Ratings(Ta=25)

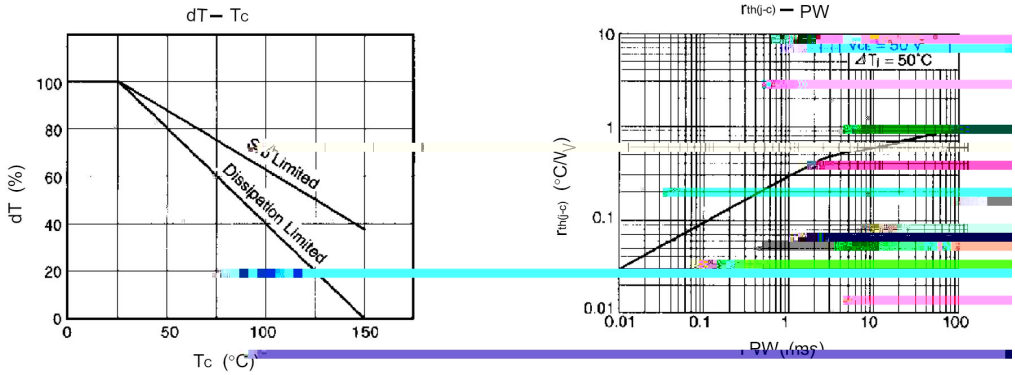
v ̈Ω Parameter	ϒ N Symbol	̈Ω Ö Rating	D Ɥ Unit
Collector to Base Voltage	V_{CBO}	500	V
Collector to Emitter Voltage	V_{CEO}	400	V
Emitter to Base Voltage	V_{EBO}	7.0	V
Collector Current - Continuous	I_C	7.0	A
Base Current - Continuous	I_B	3.5	A
Collector Power Dissipation	P_C	1.5	W
	P_C(Tc=25)	40	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

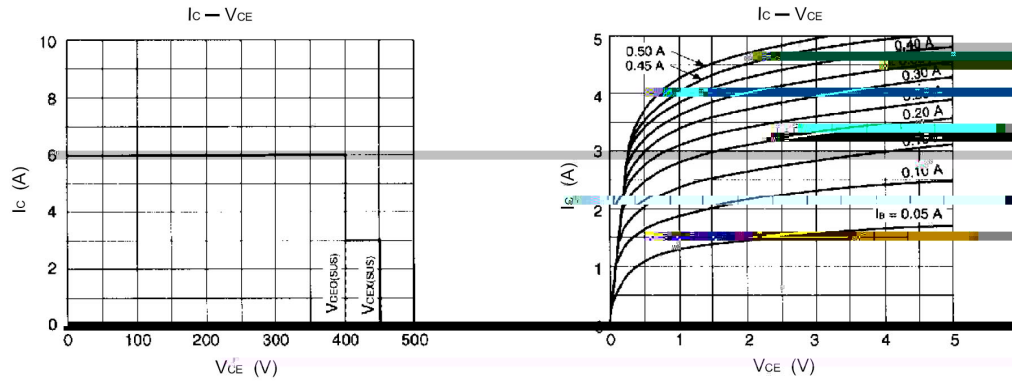
/ Electrical Characteristics(Ta=25)

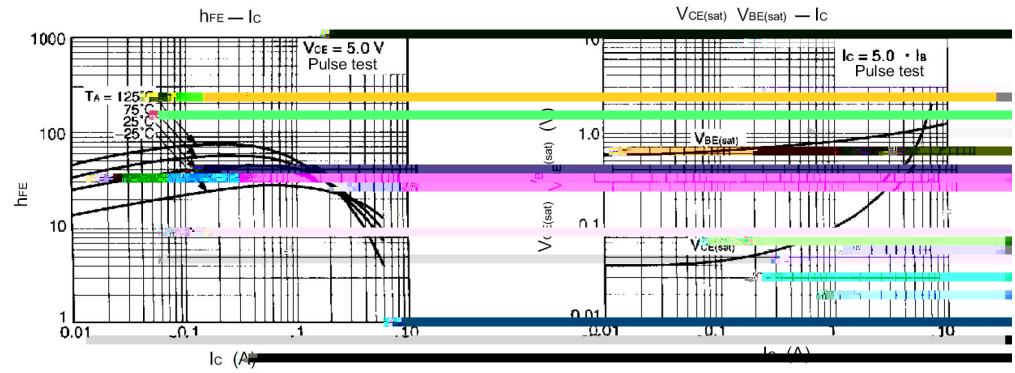
v ̈Ω Parameter	ϒ N Symbol	⊥ ː ϯ ϒ Test Conditions	ω ɳ Ö Min	Ɛ ʒ Ö Typ	ω ᶻ Ö Max	D Ɥ Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	I_C=3A I_{B1}=0.6A L=1mH	400			V
Collector to Emitter Breakdown Voltage	$V_{CEX(SUS)1}$	I_C=3A I_{B1}=-I_{B2}=0.6A $V_{BE(OFF)}$=-5V L=180 H	450			V
	$V_{CEX(SUS)2}$	I_C=6A I_{B1}=2A -I_{B2}=0.6A $V_{BE(OFF)}$=-5V L=180 H	400			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=400V I_E=0			1.0	A
Collector Cut-Off Current	I_{CER}	V_{CE}=400V R_{BE}=51 T_A=125			1.0	mA
Collector Cut-Off Current	I_{CEX1}	V_{CE}=400V $R_{BE(OFF)}$=-1.5V			10	A
	I_{CEX2}	V_{CE}=400V R_{BE}=-1.5V T_A=125			1.0	mA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=5V I_C=0			10	A
DC Current Gain	$h_{FE(1)}$	V_{CE}=5V I_C=0.1A	20		80	
	$h_{FE(2)}$	V_{CE}=5V I_C=1A	20		80	
	$h_{FE(3)}$	V_{CE}=5V I_C=3A	10			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=3A I_B=0.6A			1.0	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=3A I_B=0.6A			1.2	V
Turn-On Time	t_{on}	I_C=3A R_L=50 I_{B1}=-I_{B2}=0.6A V_{CC}=150V Refer to the test circuit			1.0	S
Storage Time	t_{stg}				2.5	S
Fall Time	t_r				1.0	S

/ Electrical Characteristic Curve

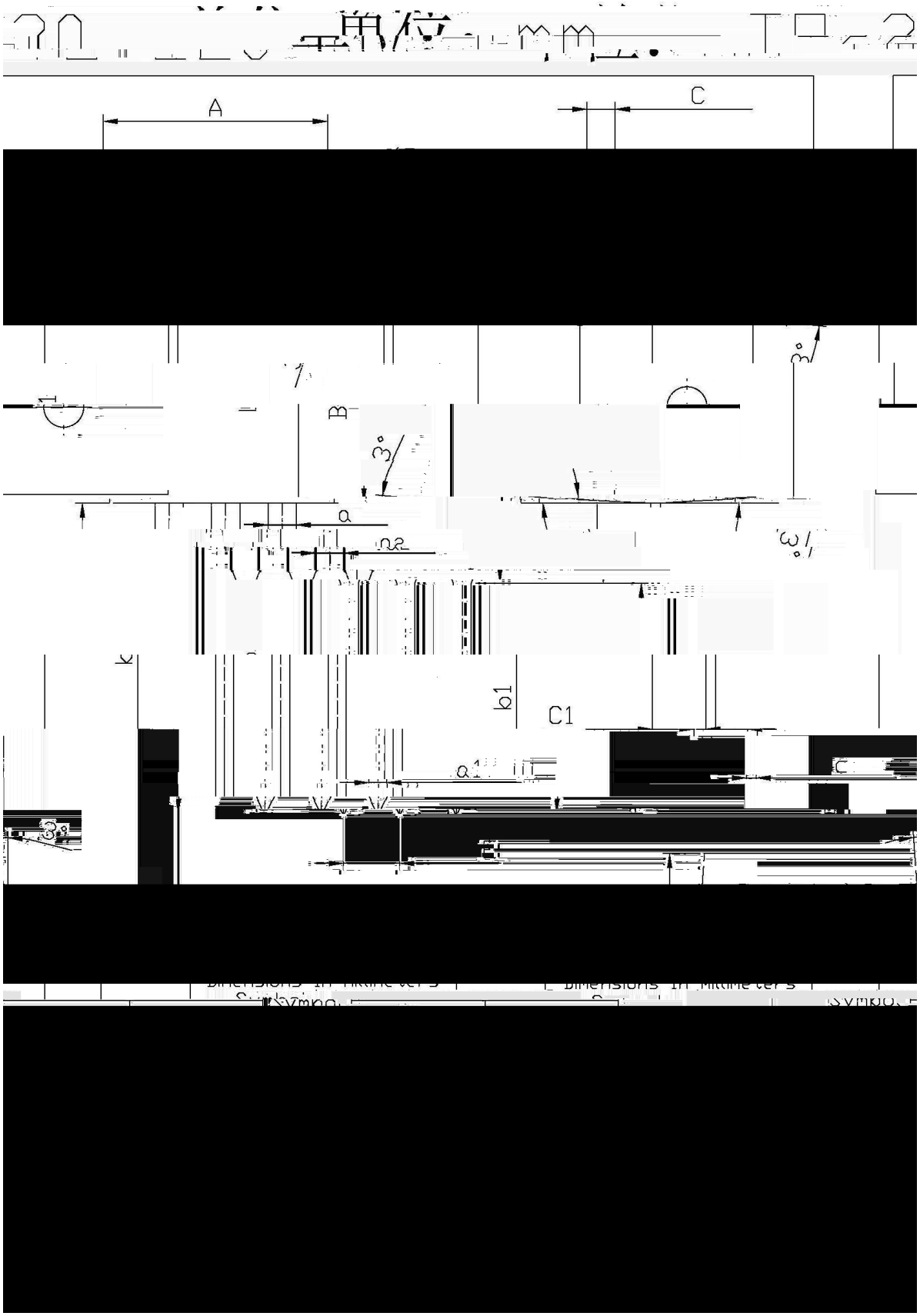




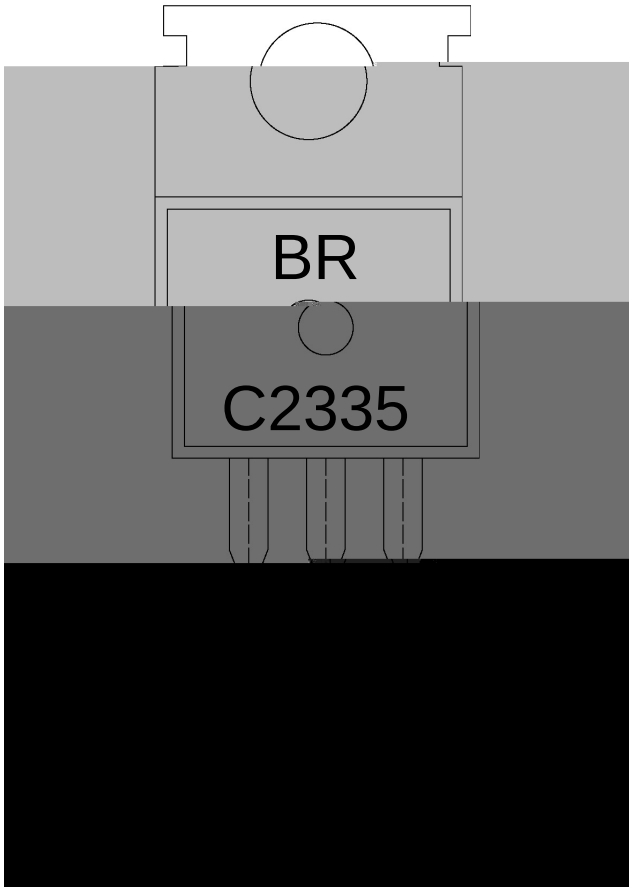




/ Package Dimensions



/ Marking Instructions



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Note:

BR:	Company Code
C2335:	Product Type.
****:	Lot No. Code, code change with Lot No.