

**2SC3664****400V/20A Driver Applications****Applications**

- Induction cookers.
- High-voltage, high power switching.

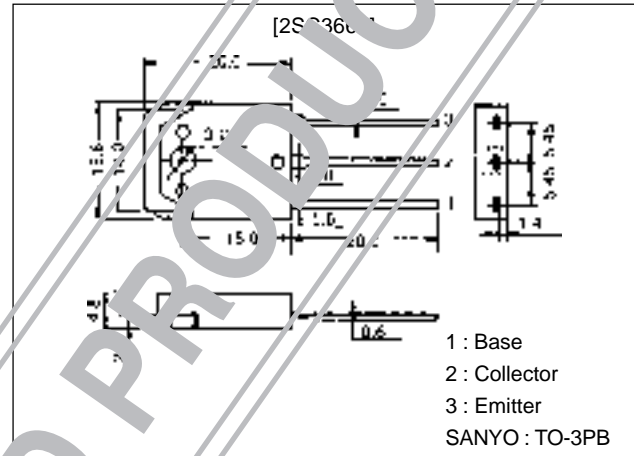
**Features**

- Fast speed (adoption of MBIT process).
- High breakdown voltage ( $V_{CBO}=800V$ ).
- High reliability (adoption of HVP process).
- On-chip damper diode.

**Package Dimensions**

unit:mm

2022A

**Specifications****Absolute Maximum Ratings** at  $T_a = 25^\circ C$ 

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	$V_{CBO}$		800	V
Collector-to-Emitter Voltage	$V_{CEO}$		400	V
Emitter-to-Base Voltage	$V_{EBO}$		5	V
Collector Current	$I_C$		20	A
Collector Current (Pulse)	$I_{CP}$		40	A
Base Current	$I_B$		3	A
Collector Dissipation	$P_C$	$T_c = 25^\circ C$	150	W
Junction Temperature	$T_J$		150	$^\circ C$
Storage Temperature	$T_{stg}$		-55 to +150	$^\circ C$

**Electrical Characteristics** at  $T_a = 25^\circ C$ 

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=800V, I_E=0$			1.0	mA
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=5V, I_C=0$			600	mA
DC Current Gain	$\beta_{FE}$	$V_{CE}=5V, I_C=20A$	80			
Diode Forward Voltage	$V_F$	$I_{EC}=20A$			2.0	V
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=20A, I_B=1A$			2.0	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=20A, I_B=1A$			2.5	V
Collector-to-Emitter Sustaining Voltage	$V_{CEO(sus)}$	$I_C=100mA$	400			V
Fall Time	$t_f$	$I_C=20A, I_{B1}=1A, I_{B2}=-4A, V_{CC}=200V, R_L=10\Omega$			1.5	$\mu s$

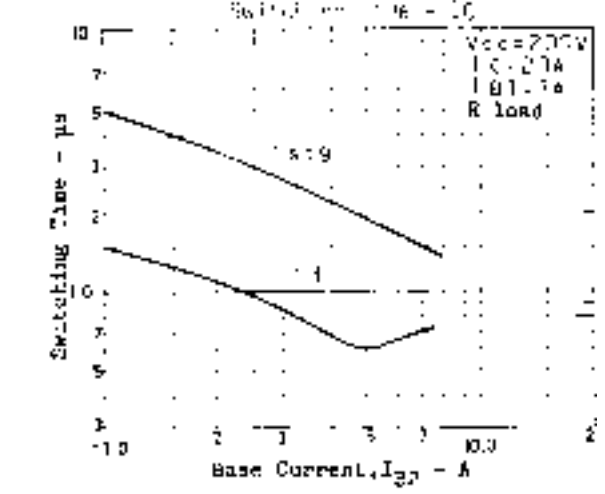
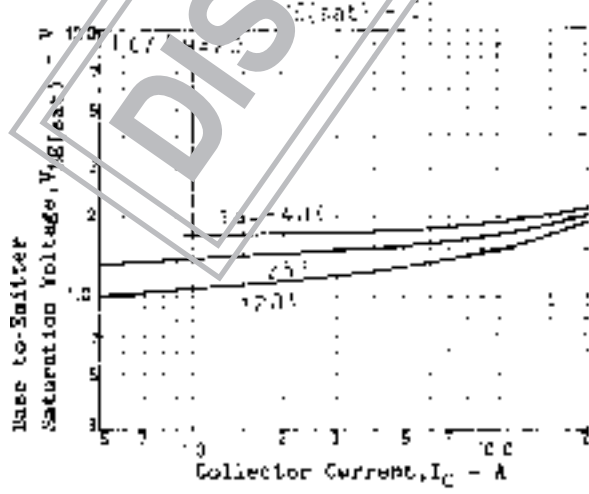
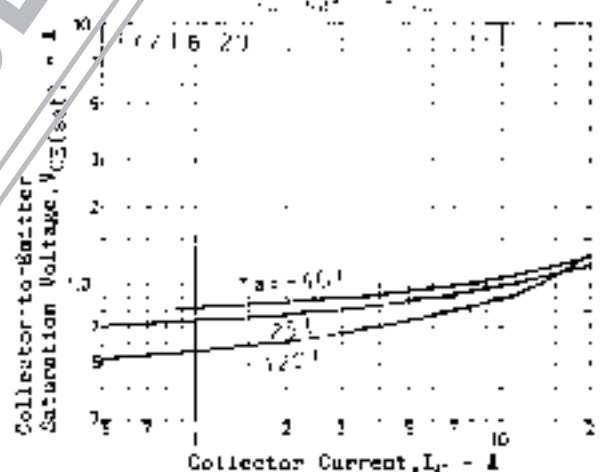
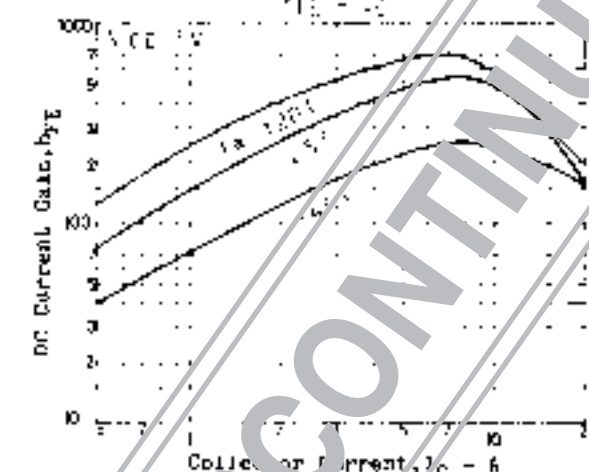
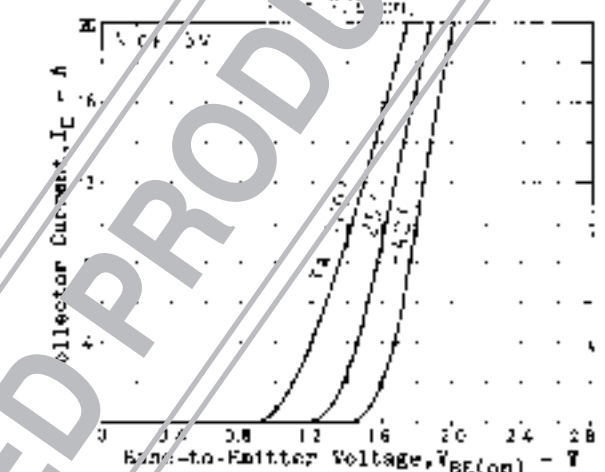
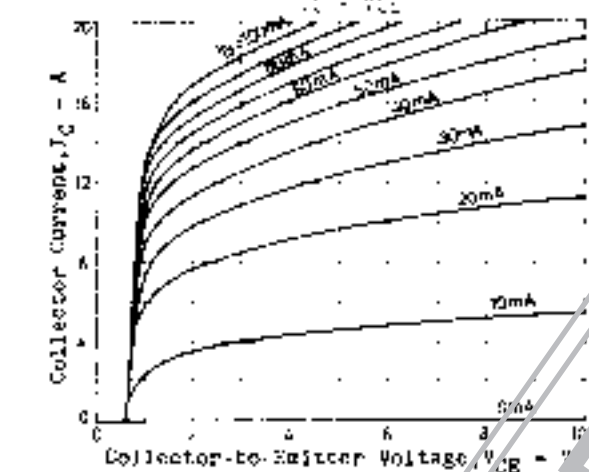
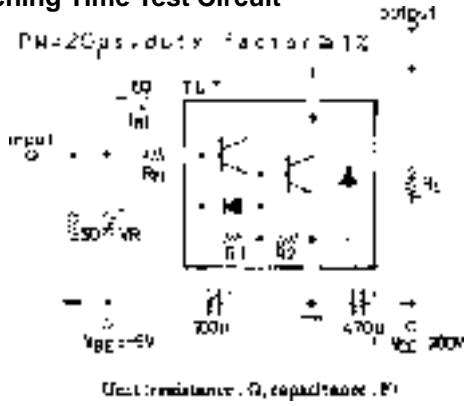
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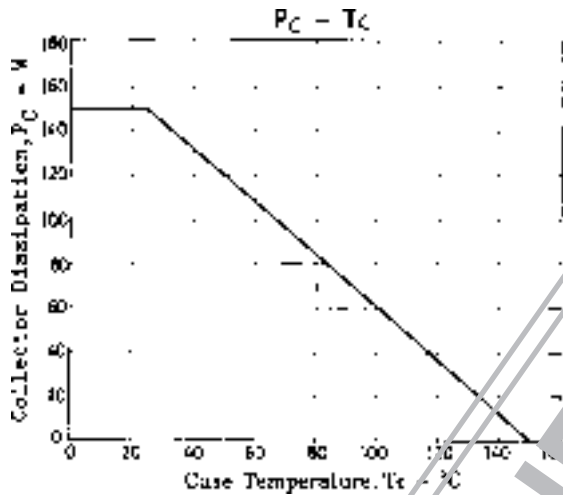
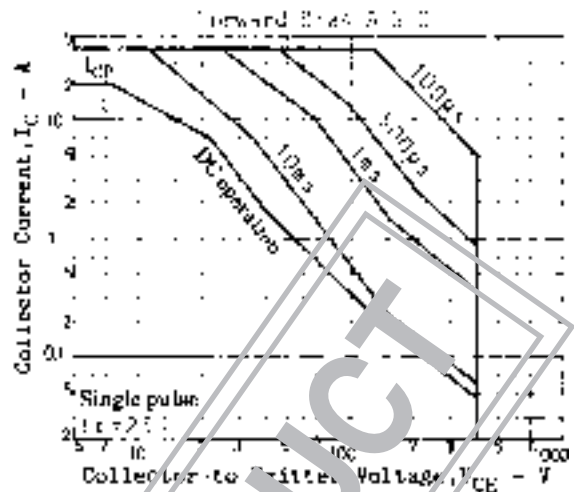
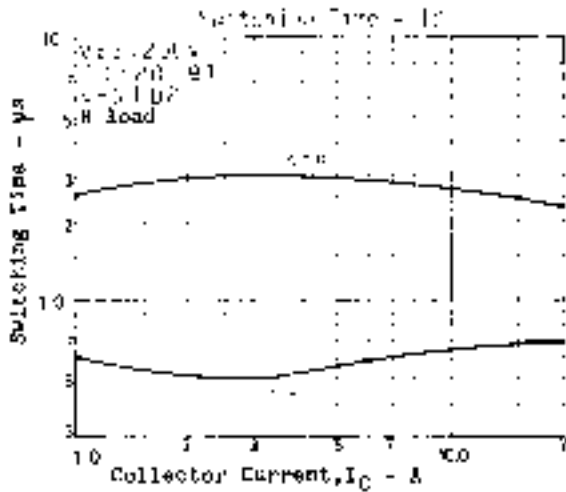
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Switching Time Test Circuit



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