

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

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

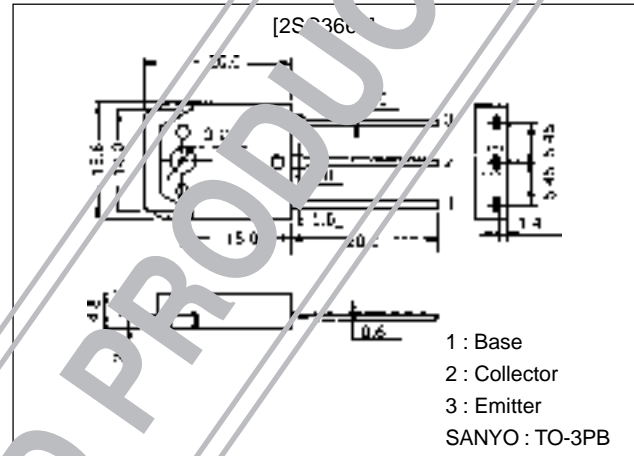
Features

- 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	β_{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	μs

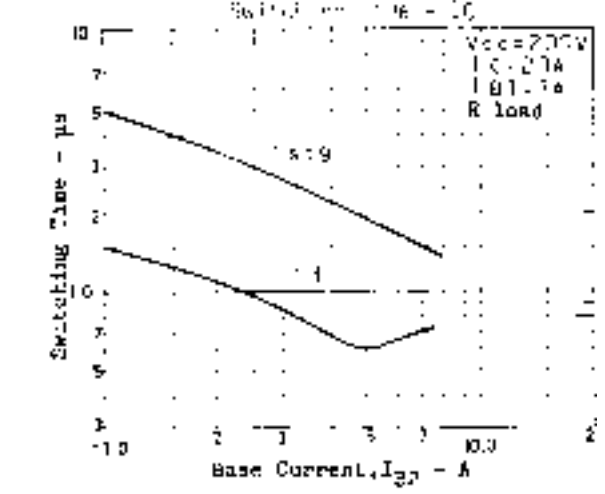
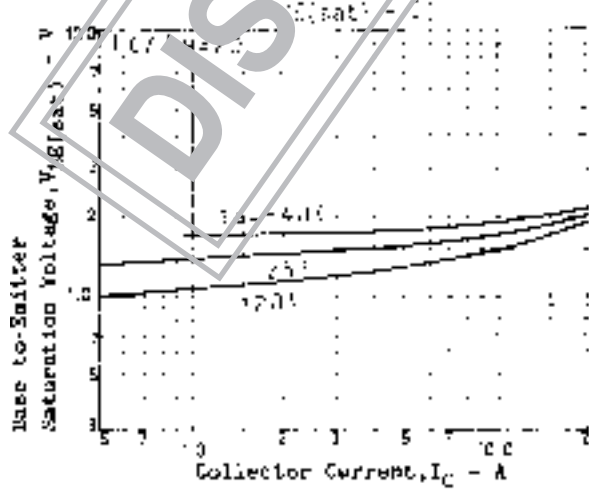
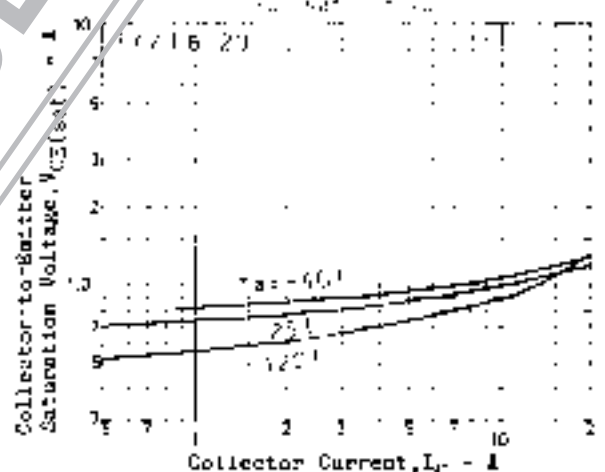
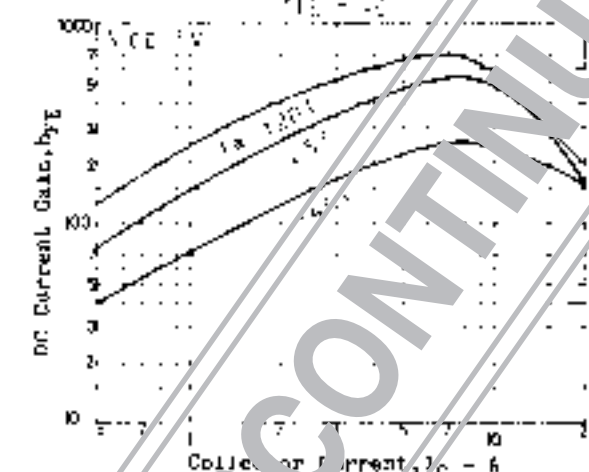
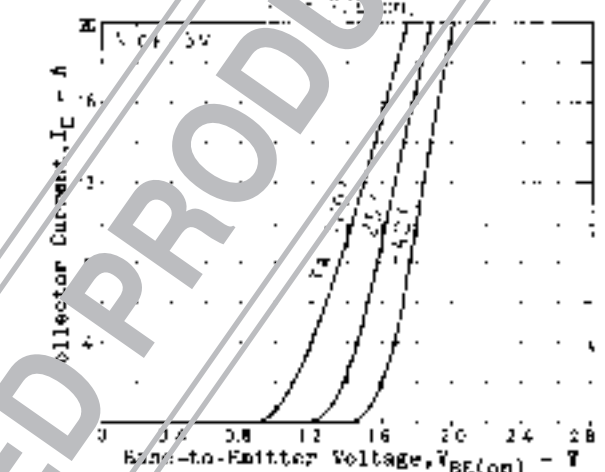
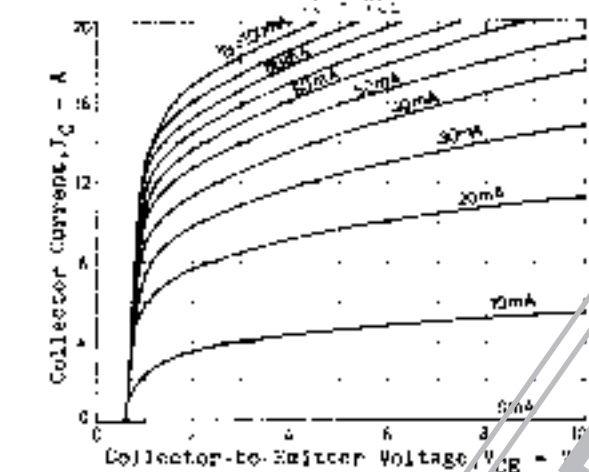
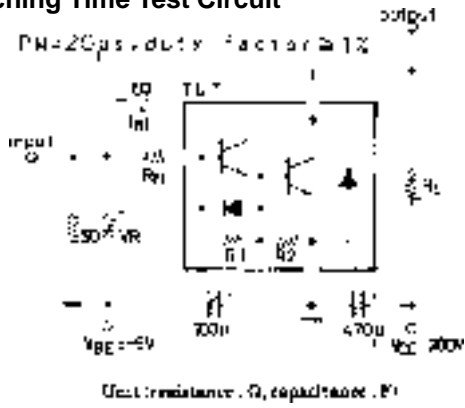
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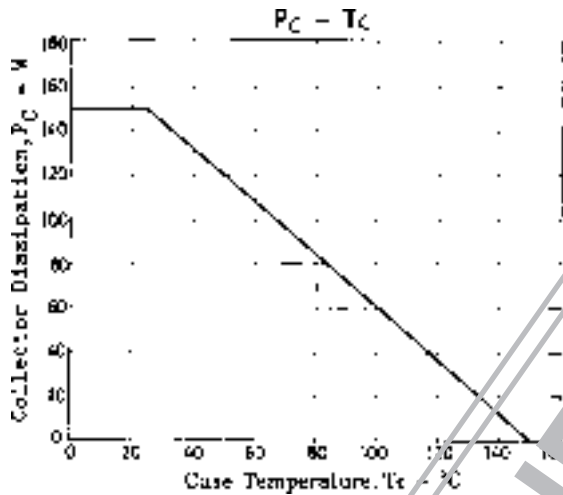
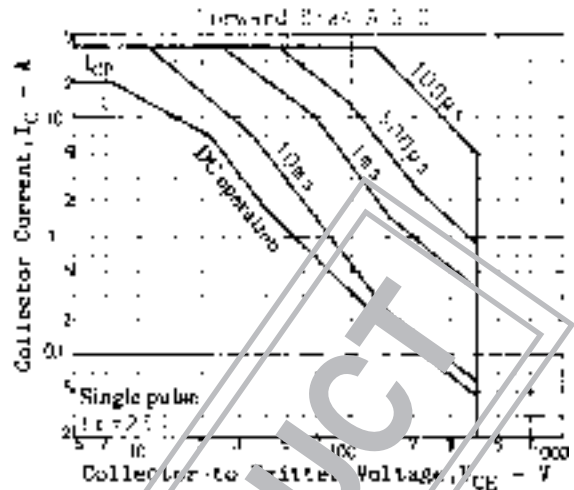
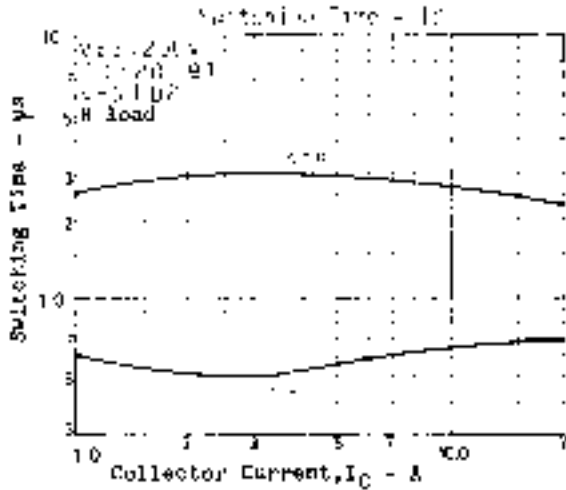
SANYO Electric Co., Ltd. Semiconductor Business Headquarters

TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

Switching Time Test Circuit



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