

**SANYO****2SC3292****For General-Purpose Drivers****Applications**

- Especially suited for use in switching of L load motor driver, printer hammer driver, relay driver, etc.

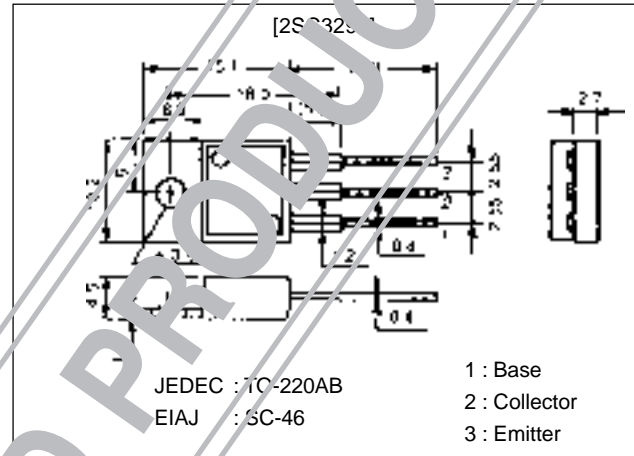
**Features**

- High DC current gain.
- Large current capacity and wide ASO.
- Contains  $60\pm 10V$  Zener diode between collector and base.
- Uniformity in collector-to-base breakdown voltage due to adoption of accurate impurity diffusion process.
- 15mJ reverse energy rating.

**Package Dimensions**

unit:mm

2010C

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	$V_{CBO}$		50*	V
Collector-to-Emitter Voltage	$V_{CEO}$		50*	V
Emitter-to-Base Voltage	$V_{EBO}$		6	V
Collector Current	$I_C$		1.2	A
Collector Current (Pulse)	$I_{CP}$		2.5	A
Base Current	$I_B$		0.25	A
Collector Dissipation	$P_C$	$T_C = 25^\circ C$	20	W
Junction Temperature	$T_J$		150	$^\circ C$
Storage Temperature	$T_{stg}$		-55 to +150	$^\circ C$

\* : Built-in Zener diode ( $60\pm 10V$ )**Electrical Characteristics** at  $T_a = 25^\circ C$ 

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=40V, I_E=0$			10	$\mu A$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=5V, I_C=0$			2	mA
DC Current Gain	$h_{FE}$	$V_{CE}=5V, I_C=0.5A$	1000	4000		
Gain-Bandwidth Product	$f_T$	$V_{CE}=5V, I_C=0.5A$		180		MHz
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=0.5A, I_B=2mA$		1.0	1.5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=0.5A, I_B=2mA$			2.0	V

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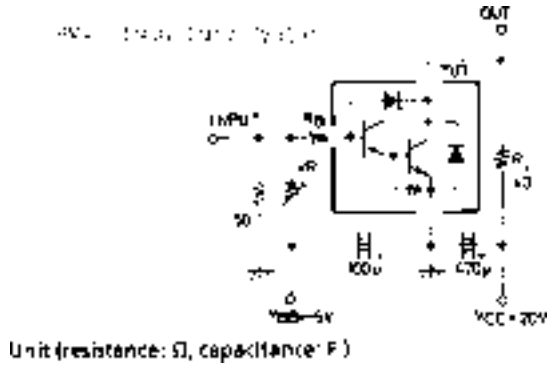
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

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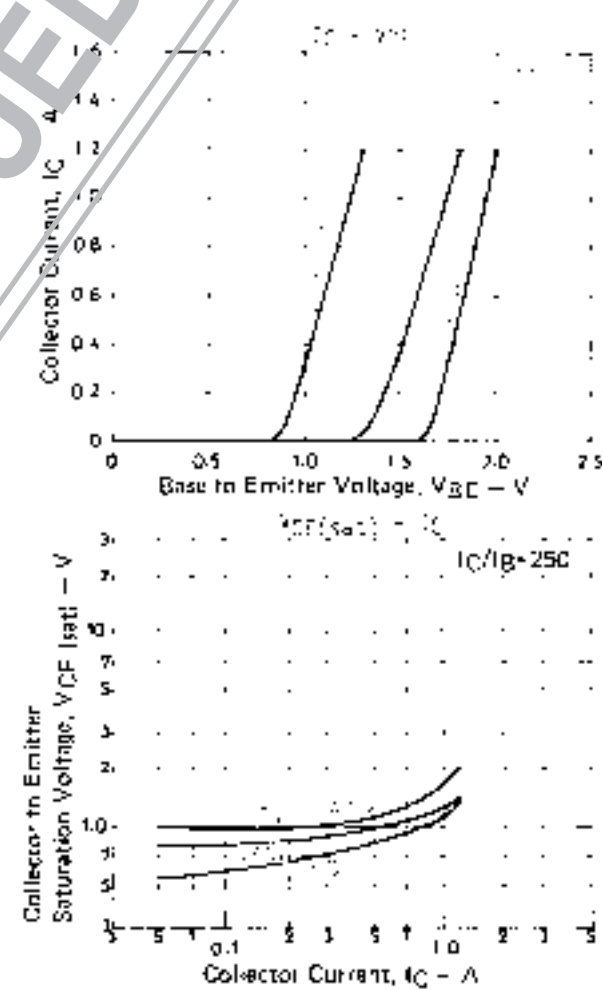
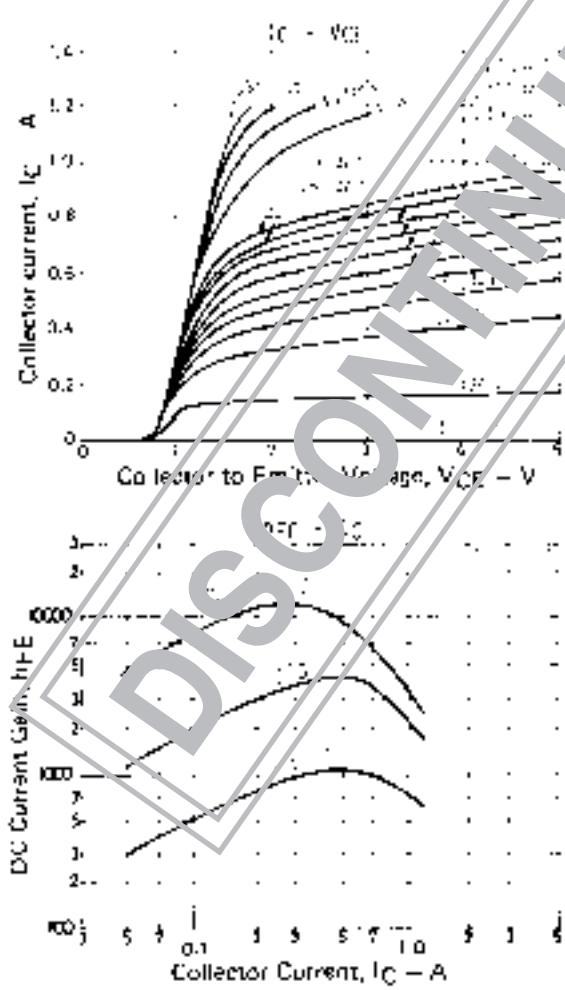
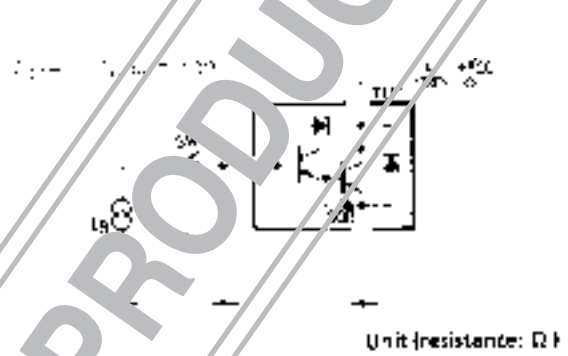
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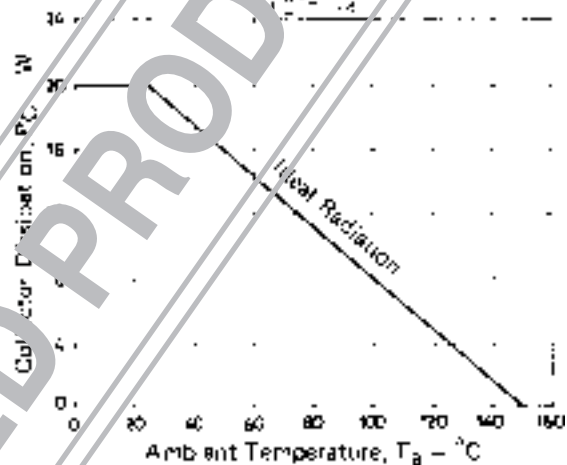
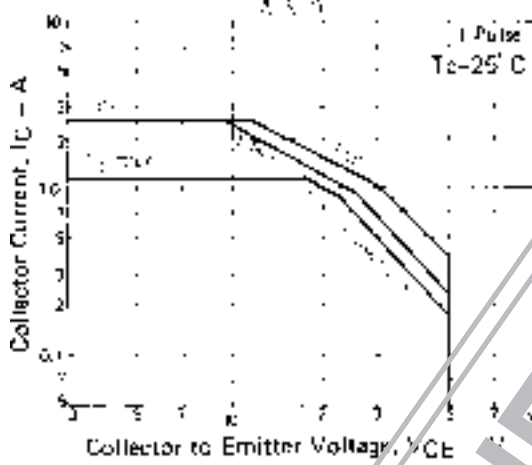
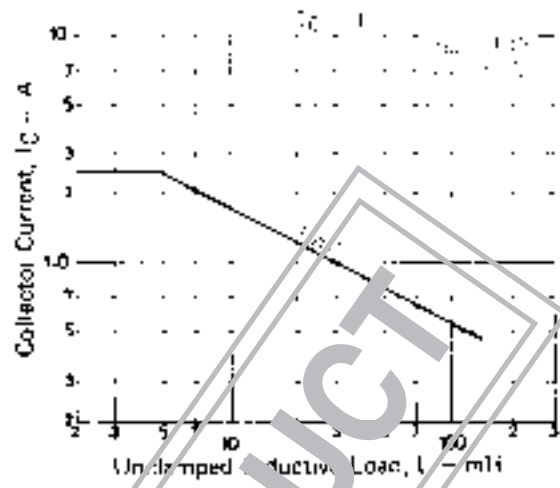
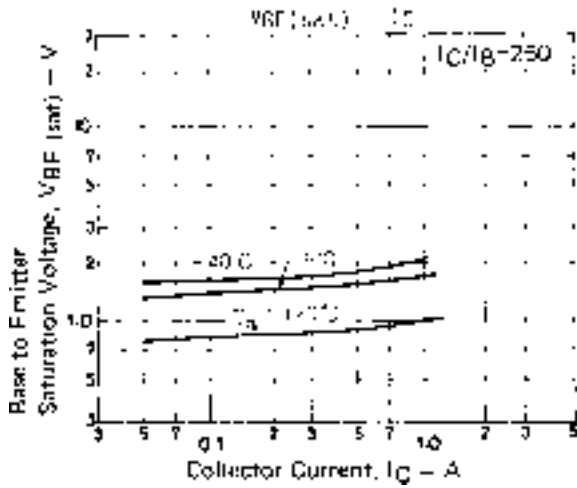
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=0.1mA, I_E=0$	50	60	70	V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA, R_{BE}=\infty$	50	60	70	V
Unclamped inductive load enaegy	Es/b	$L=100mH, R_{BE}=100\Omega$	15			mJ
Turn-ON Time	$t_{on}$	$V_{CC}=20V, I_C=0.5A, I_{B1}=-I_{B2}=2mA$		0.2		$\mu s$
Storage Time	$t_{stg}$	$V_{CC}=20V, I_C=0.5A, I_{B1}=-I_{B2}=2mA$		2.2		$\mu s$
Fall Time	$t_f$	$V_{CC}=20V, I_C=0.5A, I_{B1}=-I_{B2}=2mA$		0.4		$\mu s$

## Switching Time Test Circuit



## Es/b Test Circuit





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