

**SANYO**

No.1221C

**2SD1395**

NPN Triple Diffused Planar Silicon Darlington Transistor.

**Driver Applications****Applications**

- Suitable for use in switching of L load (motor drivers, printer hammer drivers, relay drivers).

**Features**

- High DC current gain.
- Large current capacity.
- Wide ASO.
- On-chip Zener diode of  $60 \pm 10V$  between collector and base.
- Uniformity in collector-to-base breakdown voltage due to adoption of accurate impurity diffusion process.
- High inductive load handling capability.

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

			unit
Collector-to-Base Voltage	$V_{CB0}$	50※	V
Collector-to-Emitter Voltage	$V_{CE0}$	50※	V
Emitter-to-Base Voltage	$V_{EB0}$	6	V
Collector Current	$I_C$	5	A
Collector Current (Pulse)	$I_{CP}$	8	A
Base Current	$I_B$	0.5	A
Collector Dissipation	$P_C$	40	W
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature	$T_{stg}$	-55 to +150	$^\circ C$

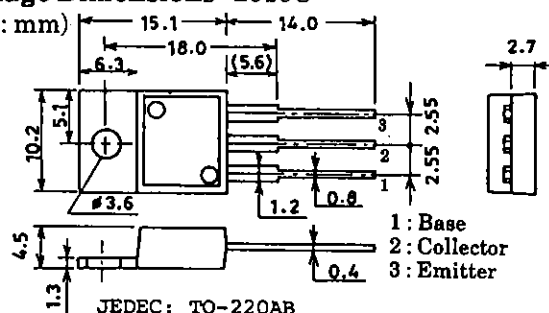
※ : With Zener diode ( $60 \pm 10V$ )

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

			min	typ	max	unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = 40V, I_E = 0$			100	$\mu A$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 5V, I_C = 0$			3	mA
DC Current Gain	$h_{FE}$	$V_{CE} = 3V, I_C = 2.5A$	1000	4000		
Gain-Bandwidth Product	$f_T$	$V_{CE} = 5V, I_C = 2.5A$		20		MHz
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = 2.5A, I_B = 5mA$		0.9	1.5	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = 2.5A, I_B = 5mA$			2.0	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 5mA, I_E = 0$	50	60	70	V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 50mA, R_{BE} = \infty$	50	60	70	V
Inductive Load Handling Capability	$Es/b$	$L = 100mH, R_{BE} = 100\Omega$	50			mJ
Rise Time	$t_{on}$	$V_{CC} = 20V, I_C = 3.0A$		0.6		$\mu s$
Storage Time	$t_{stg}$	$I_{B1} = -I_{B2} = 6mA$		4.0		$\mu s$
Fall Time	$t_f$			1.5		$\mu s$

**Package Dimensions 2010C**

(unit : mm)

JEDEC : TO-220AB  
EIAJ : SC-46**SANYO Electric Co., Ltd. Semiconductor Business Headquarters**

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"Searchdatasheets provides users with one of the Internet's most complete sources for obsolete datasheets," said Ariel Zriel, President, Market Maker Systems.

As the life-cycle of components is shortened by the constant demand for faster and better technology, electronics parts are being rendered obsolete at an unprecedented rate. Searchdatasheets gathers and stores the fact sheets, which explain how to use those components.

"Once a component manufacturer decides to eliminate a component datasheet from its web site," said Zriel, "we take over and list it along with the millions of other datasheets that our users can quickly access."

Users can perform standard searches for datasheets, or use the cross-reference search option if they want to find a compatible part from another manufacturer.

Searchdatasheets also informs its users when parts are going to become obsolete, providing them with timely product change notification (PCN), product discontinuation notices (PDN) and end of life (EOL) notification.

Searchdatasheets is the only database of its kind that has components engineers onstaff.

That means users can count on assistance from qualified personnel when performing cross-reference searches. Searchdatasheets engineers also regularly research and add and new datasheets to the system.

"We have full-time Engineers on-staff to research and add datasheets if the information is not currently on our site," said Zriel. "We are providing a place for users to have their questions answered quickly. Our aim is to build a community for components engineers who need help in product design."

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