2SC3293



Driver Applications

Applications

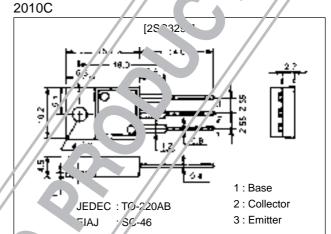
· Suitable for use in switching of L load (motor drivers, printer hammer drivers, relay drivers).

Features

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

Package Dimensions

unit:mm



Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	VCPO		50*	V
Collector-to-Emitter Voltage	VCEO		50*	V
Emitter-to-Base Voltage	Vr_BO		6	V
Collector Current	l _C		2	Α
Collector Current (Pulse)	I _{CP}		4	Α
Base Current	la la		0.4	А
Collector Dissipation	7C 1c 25	°C //	20	W
Junction Temperature	Ti	//	150	°C
Storage Temperature	Tsi	//	-55 to +150	°C

^{*:} With Zener diode (60±10V)

Electrical Characteristics at Ta 25 C

Parameter	Symbol	Conditions	Ratings			Unit
Farameter			min	typ	max	Onit
Collector Cutoff Current	ICPO	V _{CB} =40V, I _E =0			10	μΑ
Emitter Cutoff Currerit	lz-BO	V _{EB} =5V, I _C =0			2	mA
DC Current Gain	bFE	V _{CE} =5V, I _C =1A	1000	4000		
Gain-Bandwidth P oduct	f _T	V _{CE} =5V, I _C =1A		180		MHz
Collector-to-Emidter Satura states	VCE(sat)	I _C =1A, I _B =4mA		1.0	1.5	V
Base-to-E nit'er Satura Volta	V _{BE(sat)}	I _C =1A, I _B =4mA			2.0	V

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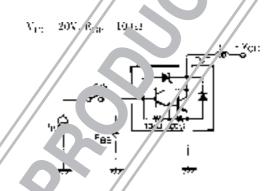
SANYO Electric Co.,Ltd. Semiconductor Bussiness Headquaters

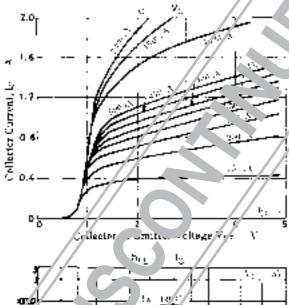
Parameter	Symbol	Conditions	Ratings			Unit
Faianielei	Symbol		min	typ	max	O'III
Collector-to-Base Breakdown Voltage	V(BR)CBO	I _C =0.1mA, I _E =0	50	60	70	V
Collector-to-Emitter Breakdown Voltage	V(BR)CEO	I _C =1mA, R _{BE} =∞	50	60	70	V
Inductive Load Handling Capability	Es/b	L=100mH, R_{BE} =100 Ω	25			mJ
Turn-ON Time	ton	V _{CC} =20V, I _C =1A, I _{B1} =-I _{B2} =4mA		0.2		μs
Storage Time	t _{stg}	V _{CC} =20V, I _C =1A, I _{B1} =-I _{B2} =4mA		3.5		μs
Fall Time	t _f	V _{CC} =20V, I _C =1A, I _{B1} =-I _{B2} =4mA		2.5		μs

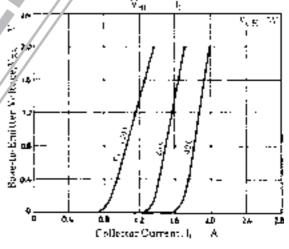
Switching Time Test Circuit

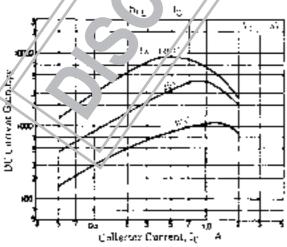
$$\begin{split} |PW| &= S(ws, |S_{B}|) \cdot Cyr|_{F} \leq C(w) \\ |I_{B}| &= -1_{B2} = 4 - A \\ &= -1_{B2} = 4 -$$

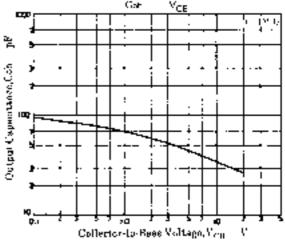
Es/b Test Circuit

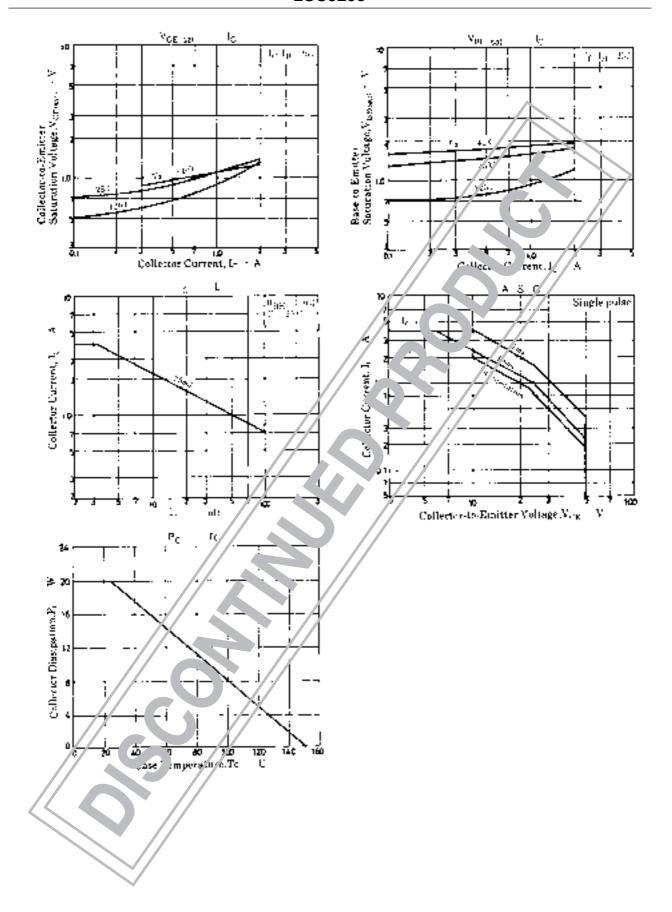


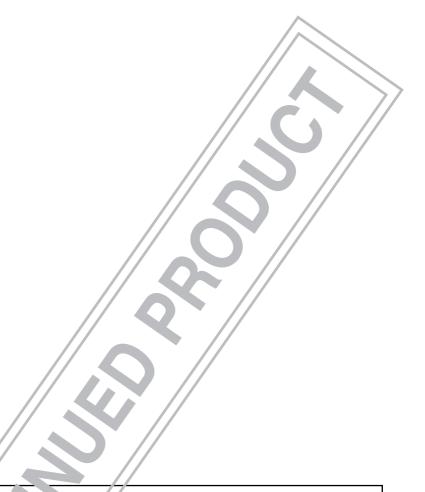












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