

2SC5638

Ultrahigh-Definition CRT Display Horizontal Deflection Output Applications

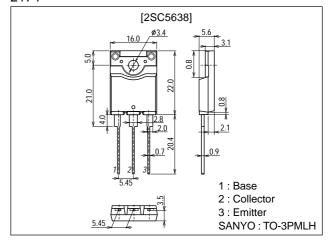
Features

- · High speed ($t_f=100$ ns typ).
- · High breakdown voltage (V_{CBO}=1500V).
- · High reliability (Adoption of HVP process).
- · Adoption of MBIT process.

Package Dimensions

unit:mm

2174



Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V _{CBO}		1500	V
Collector-to-Emitter Voltage	VCEO		800	V
Emitter-to-Base Voltage	V _{EBO}		6	V
Collector Current	lc		15	Α
Collector Current (Pulse)	I _{CP}		35	Α
Collector Dissipation	PC		3	W
	''C	Tc=25°C	95	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
	Symbol		min	typ	max	Offic
Collector Cutoff Current	ICES	V _{CE} =1500V, R _{BE} =0			1.0	mA
Collector-to-Emitter Sustain Voltage	V _{CEO(sus)}	I _C =100mA, I _B =0	800			V
Emitter Cutoff Current	I _{EBO}	V _{EB} =4V, I _C =0			1.0	mA
Collector Cutoff Current	ICBO	V _{CB} =800V, I _E =0			10	μA
DC Current Gain	h _{FE} 1	V _{CE} =5V, I _C =1A	20		30	
	h _{FE} 2	V _{CE} =5V, I _C =12A	4		7	

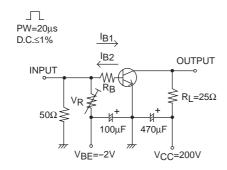
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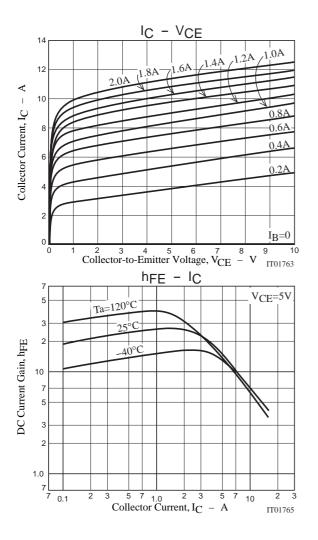
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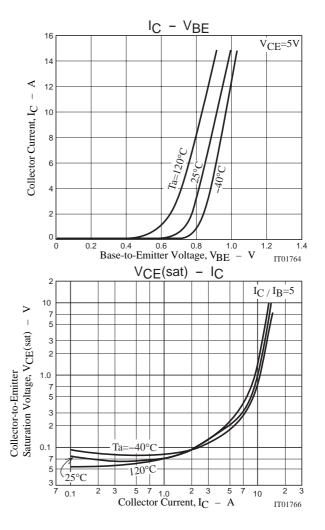
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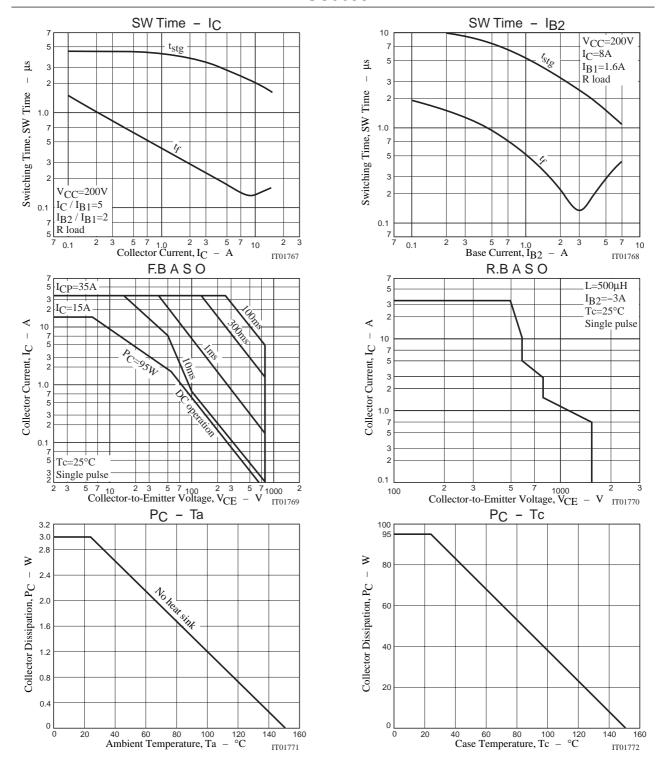
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	01111
Collector-to-Emitter Saturation Voltage	V _{CE} (sat)	I _C =12A, I _B =3A			5	V
Base-to-Emitter Saturation Voltage	V _{BE} (sat)	I _C =12A, I _B =3A			1.5	V
Storage Time	t _{stg}	I _C =8A, I _{B1} =1.6A, I _{B2} =-3.2A			3.0	μs
Fall Time	t _f	I _C =8A, I _{B1} =1.6A, I _{B2} =-3.2A			0.2	μs

Switching Time Test Circuit









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