

SANYO Semiconductors DATA SHEET

2SC6113 - NPN Triple Diffused Planar Silicon Transistor For 14, 21 inch TV Power Supply

Applications

• Recommended for use in 14, 21 inch TV power supply.

Features

- · High breakdown voltage and high reliability.
- Ultrahigh-speed switching.
- Wide ASO.
- · Adoption of MBIT process.
- Attachment workability is good by Mica-less package.

Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	VCBO		1000	V
Collector-to-Emitter Voltage	VCEO		500	V
Emitter-to-Base Voltage	VEBO		7	V
Collector Current	IC		15	А
Collector Current (Pulse)	ICP	PW≤300µs, duty cycle≤10%	25	А
Collector Dissipation	PC		3	W
	FC	Tc=25°C	60	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

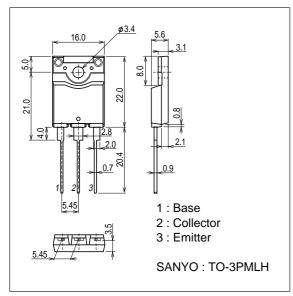
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Electrical Characteristics at Ta= $25^{\circ}C$

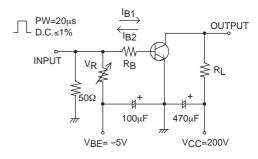
Parameter	Symbol	Conditions	Ratings			Linit
			min	typ	max	Unit
Collector Cutoff Current	ICBO	VCB=500V, IE=0A			10	μΑ
Emitter Cutoff Current	IEBO	V _{EB} =5V, I _C =0A			10	μA
DC Current Gain	hFE1	V _{CE} =5V, I _C =1.2A	40		80	
	hFE2	VCE=5V, IC=6A	8			
Gain-Bandwidth Product	fT	V _{CE} =10V, I _C =1.2A		18		MHz
Output Capacitance	Cob	V _{CB} =10V, f=1MHz		80		pF
Collector-to-Emitter Saturation Voltage	V _{CE} (sat)	IC=6A, IB=1.2A			1.0	V
Base-to-Emitter Saturation Voltage	V _{BE} (sat)	IC=6A, IB=1.2A			1.5	V
Collector-to-Base Breakdown Voltage	V(BR)CBO	IC=1mA, IE=0A	1000			V
Collector-to-Emitter Breakdown Voltage	V(BR)CEO	IC=5mA, RBE=∞	500			V
Emitter-to-Base Breakdown Voltage	V(BR)EBO	IE=1mA, IC=0A	7			V
Collector-to-Emitter Saturation Voltage	VCEX(sus)	IC=2.5A, IB1=-IB2=2A, L=1mH, clamped	500			V
Turn-ON Time	ton	V _{CC} =200V, 5I _{B1} =-2.5I _{B2} =I _C =7A, R _L =50Ω			0.5	μs
Storage Time	tstg	V _{CC} =200V, 5I _{B1} =-2.5I _{B2} =I _C =7A, R _L =50Ω			3.0	μs
Fall Time	tf	V _{CC} =200V, 5I _{B1} =-2.5I _{B2} =I _C =7A, R _L =50Ω			0.3	μs

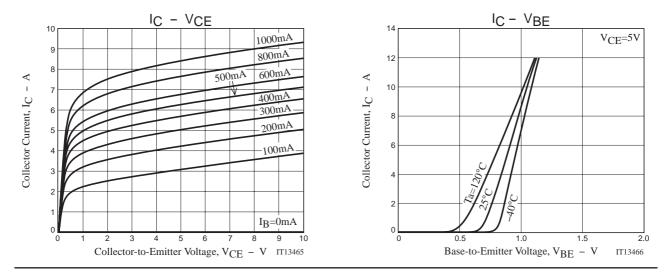
Package Dimensions

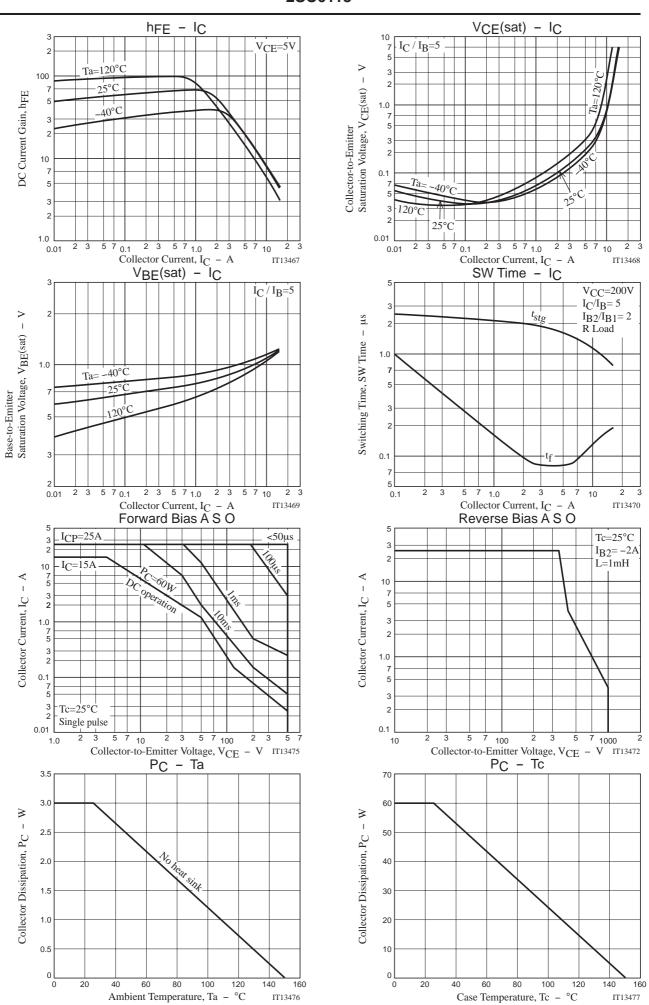
unit : mm (typ) 7504-001



Switching Time Test Circuit







No. A1155-3/4

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