

**2SC4119****800V/15A Driver Applications****Applications**

- Induction cookers.
- High-voltage , high-power switching.

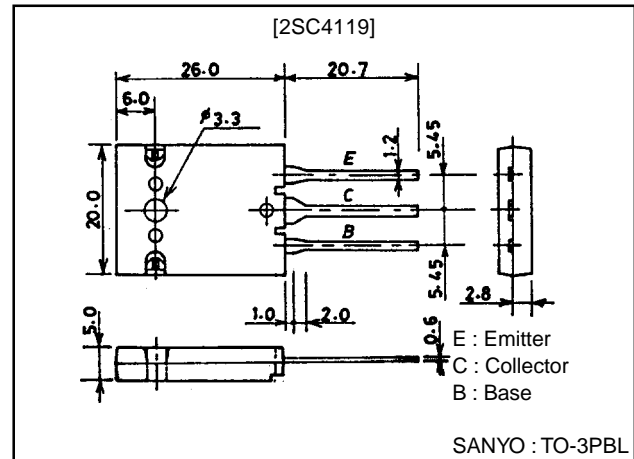
Features

- High speed (adoption of MBIT process).
- High breakdown voltage ($V_{CBO}=1500V$).
- On-chip damper diode.
- High reliability.

Package Dimensions

unit:mm

2048A

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		1500	V
Collector-to-Emitter Voltage	V_{CEO}		800	V
Emitter-to-Base Voltage	V_{EBO}		5	V
Collector Current	I_C		15	A
Collector Current (Pulse)	I_{CP}		30	A
Base Current	I_B		3	A
Collector Dissipation	P_C		3.5	W
		$T_c=25^\circ C$	250	W
Junction Temperature	T_j		150	$^\circ C$
Storage Temperature	T_{stg}		-55 to +150	$^\circ C$

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SANYO Electric Co., Ltd. Semiconductor Business Headquarters

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

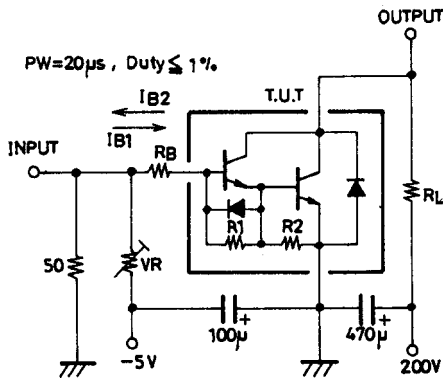
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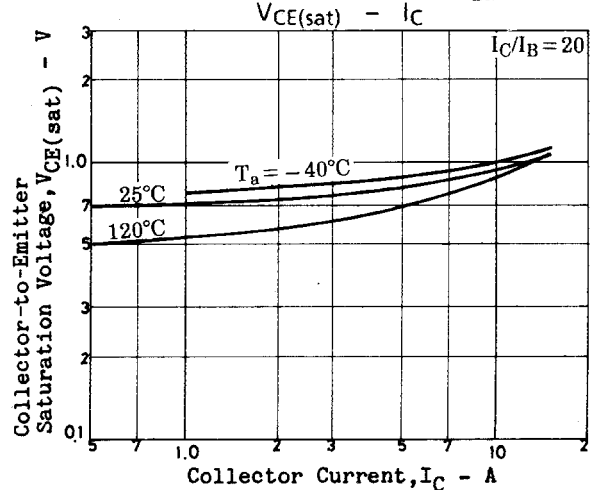
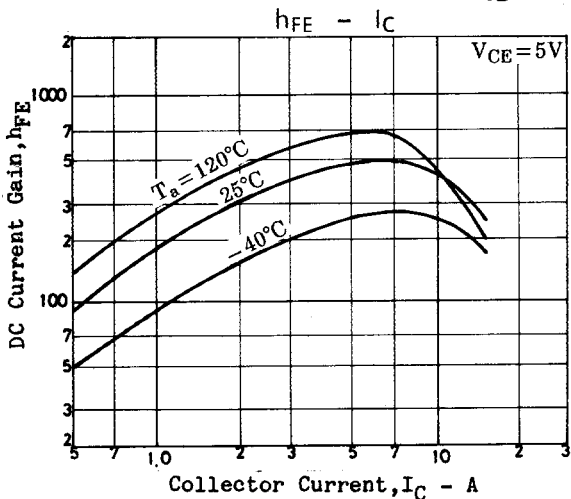
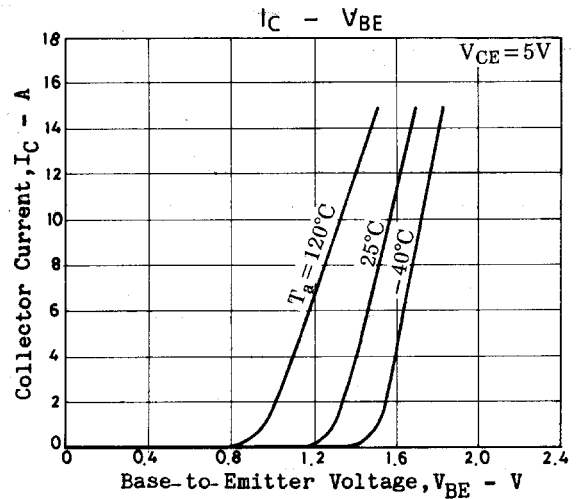
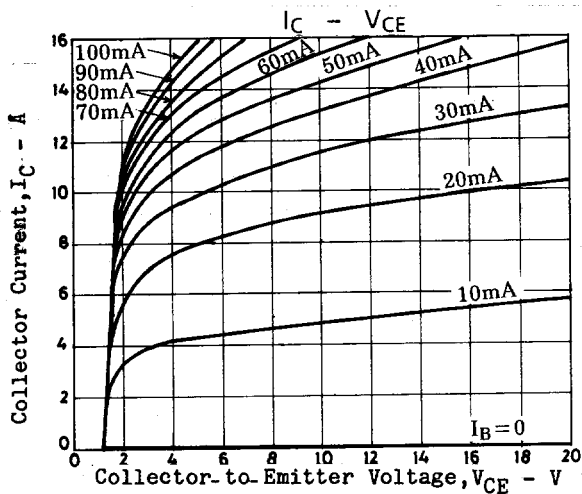
Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=800\text{V}, I_E=0$			0.1	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$			600	mA
DC Current Gain	h_{FE}	$V_{CE}=5\text{V}, I_C=15\text{A}$	25			
Collector Sustain Voltage	$V_{CEO(sus)}$	$I_C=100\text{mA}, I_B=0$	800			V
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=15\text{A}, I_B=0.75\text{A}$			3.0	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=15\text{A}, I_B=0.75\text{A}$			2.5	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=5\text{mA}, I_E=0$	1500			V
Diode Forward Voltage	V_F	$I_{EC}=15\text{A}$			2.0	V
Fall Time	t_f	$I_C=15\text{A}, I_{B1}=1\text{A}, I_{B2}=-5\text{A}, V_{CC}=200\text{V}, R_L=13.3\Omega$			2.0	μs

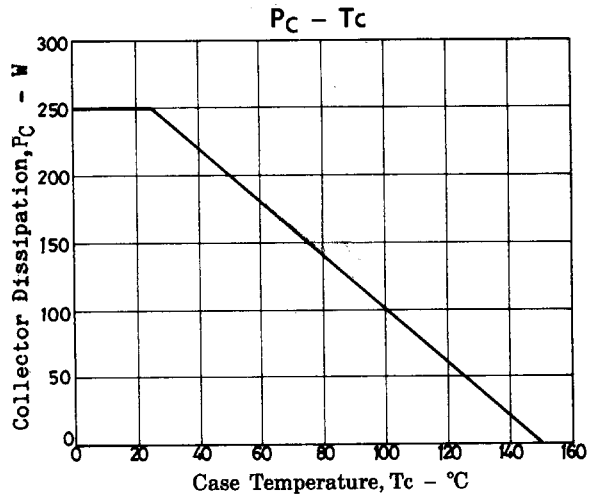
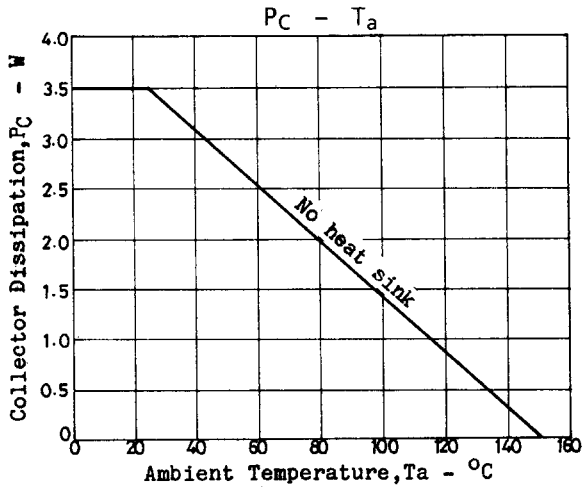
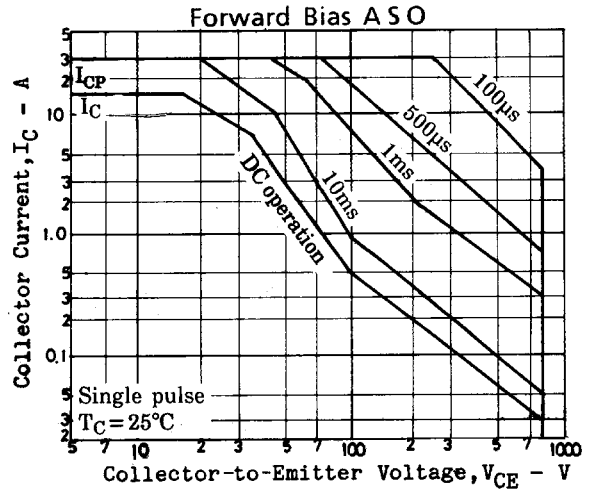
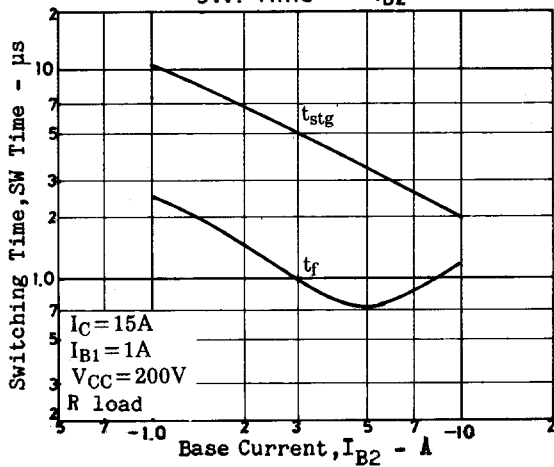
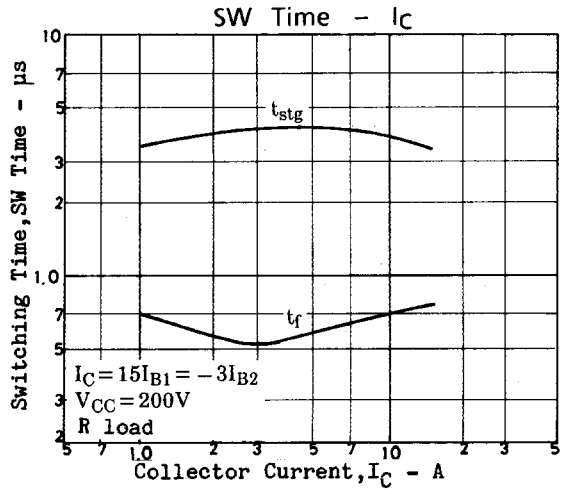
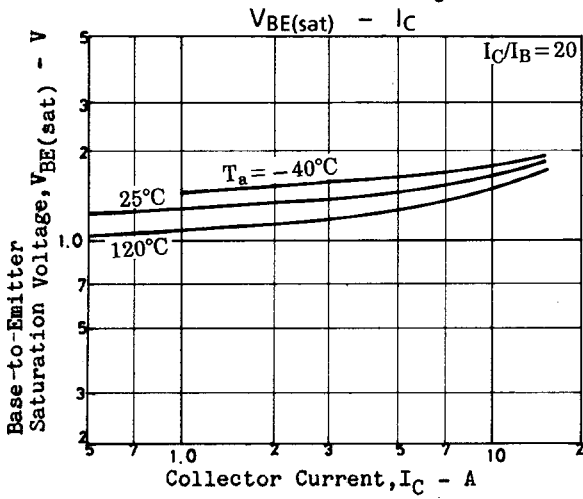
Switching Time Test Circuit



Unit (resistance : Ω , capacitance : F)



2SC4119



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