

Ordering number : ENN7408

NPN Epitaxial Planar Silicon Transistor

**2SC5915****High-Current Switching Applications****Applications**

- Relay drivers, lamp drivers, motor drivers, inverters.

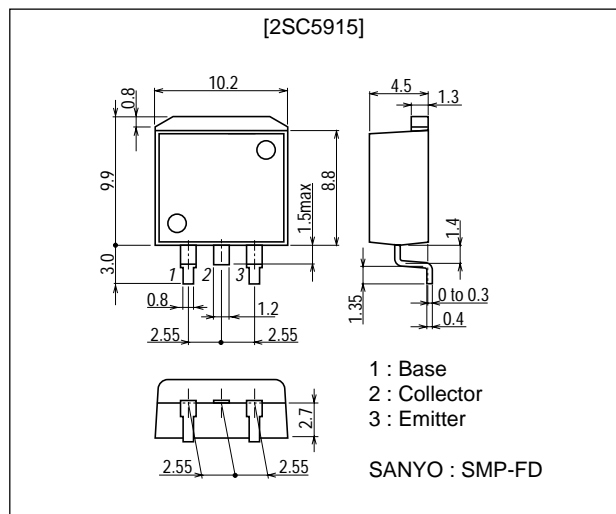
Features

- Adoption of MBIT processes.
- Large current capacitance.
- Low collector-to-emitter saturation voltage.
- High-speed switching.
- Surface mount type.

Package Dimensions

unit : mm

2069C

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CB0}		120	V
Collector-to-Emitter Voltage	V_{CES}		120	V
Collector-to-Emitter Voltage	V_{CEO}		50	V
Emitter-to-Base Voltage	V_{EBO}		6	V
Collector Current	I_C		10	A
Collector Current (Pulse)	I_{CP}		15	A
Base Current	I_B		2	A
Collector Dissipation	P_C		1.65	W
		$T_c=25^\circ\text{C}$	25	W
Junction Temperature	T_J		150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

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SANYO Electric Co.,Ltd. Semiconductor Company

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

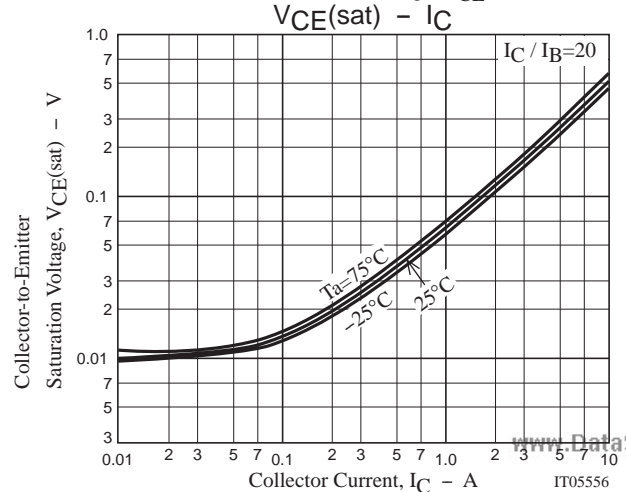
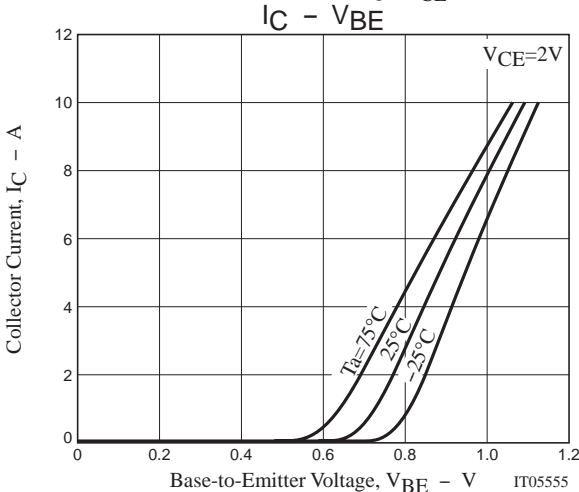
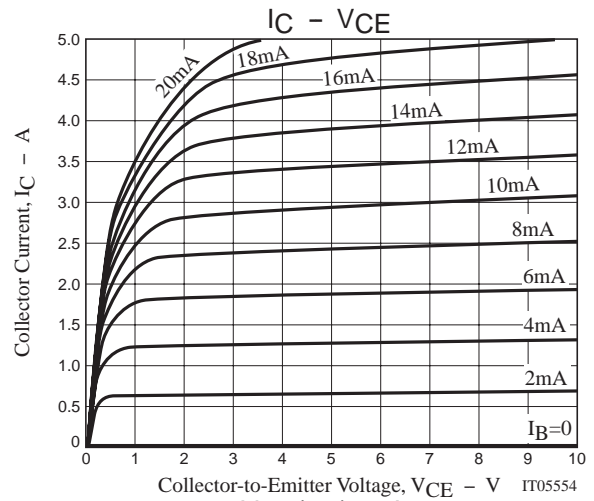
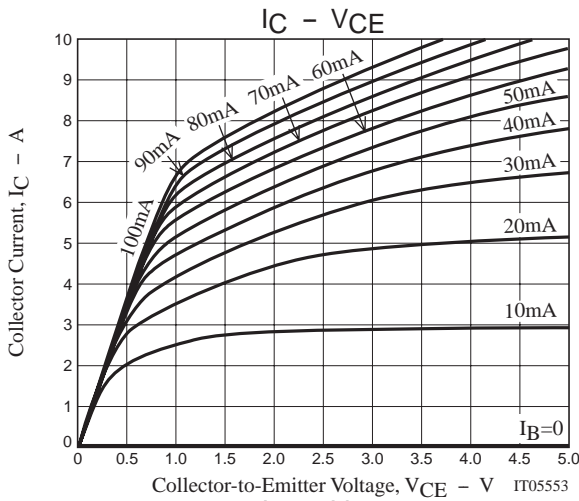
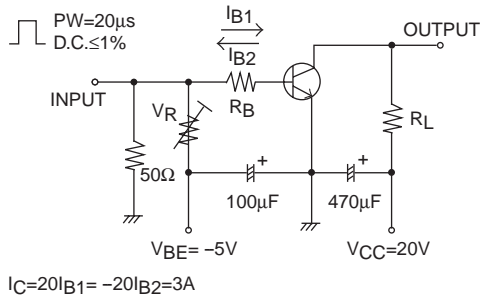
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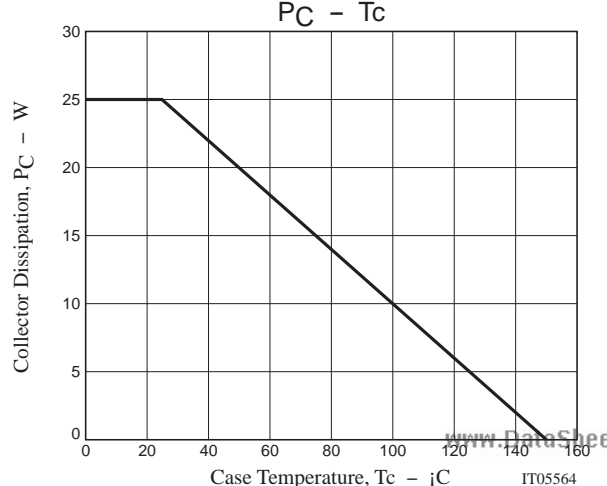
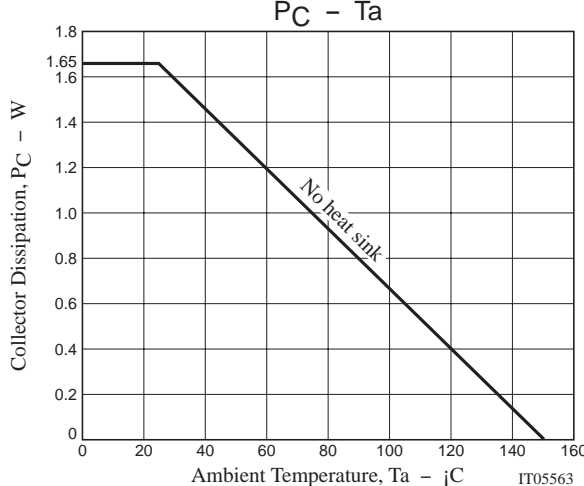
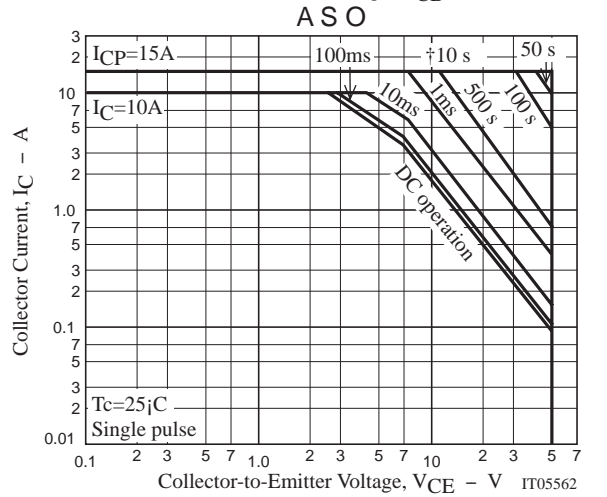
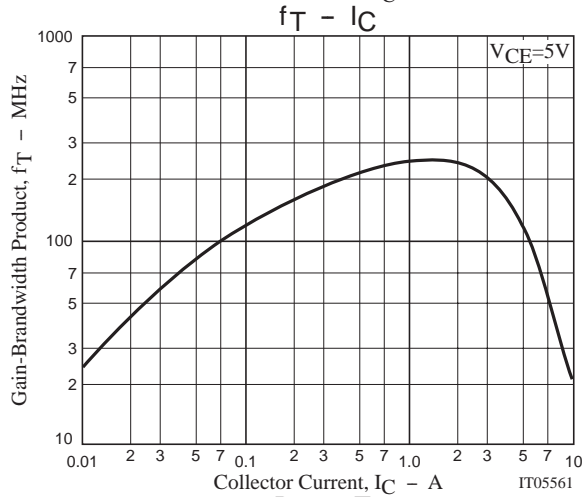
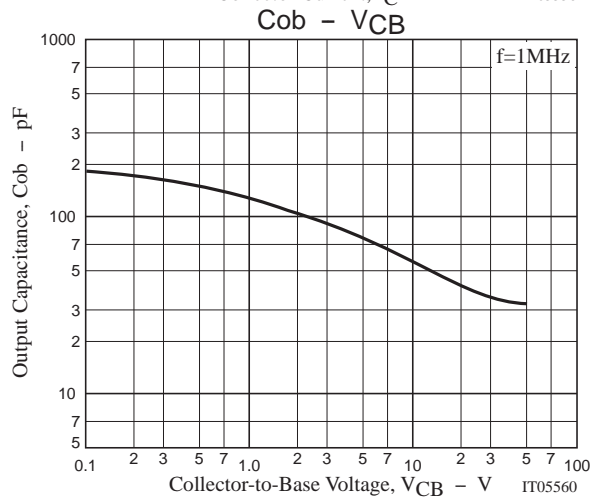
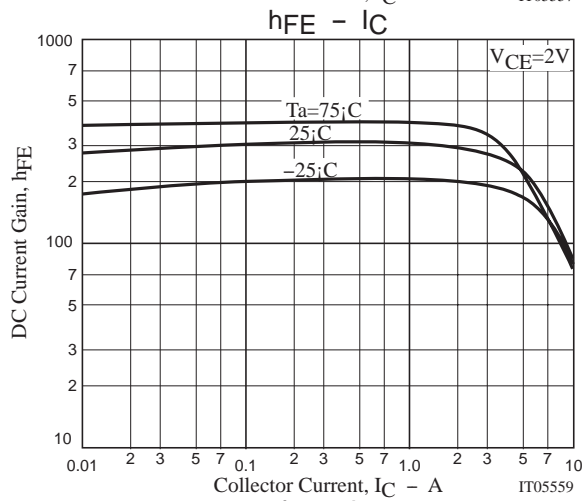
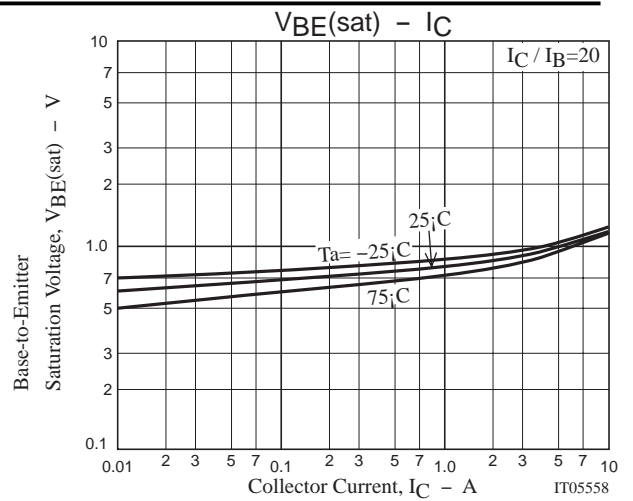
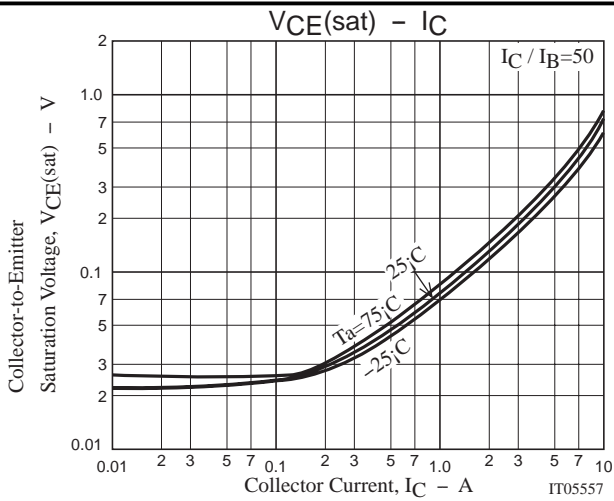
Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=40V, I_E=0$			10	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=4V, I_C=0$			10	μA
DC Current Gain	h_{FE1}	$V_{CE}=2V, I_C=1A$	200		560	
	h_{FE2}	$V_{CE}=2V, I_C=5A$	100			
Gain-Bandwidth Product	f_T	$V_{CE}=5V, I_C=1A$		200		MHz
Output Capacitance	C_{ob}	$V_{CB}=10V, f=1MHz$		60		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=5A, I_B=250mA$		180	360	mV
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=5A, I_B=250mA$		0.93	1.4	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	120			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CES}$	$I_C=100\mu A, R_{BE}=0$	120			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA, R_{BE}=\infty$	50			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	6			V
Turn-On Time	t_{on}	See specified test circuit.		40		ns
Storage Time	t_{stg}	See specified test circuit.		1000		ns
Fall Time	t_f	See specified test circuit.		80		ns

Swicthing Time Test Circuit



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