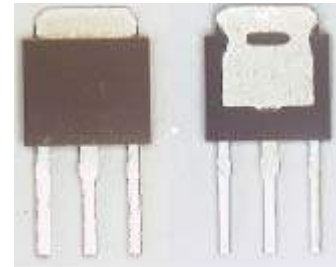




Semiconductor & Storage Products Company

NPN Bipolar Transistors for AC Adaptors and DC-DC Converters: TTC008, TTC012

We have developed NPN bipolar transistors for AC adaptors and DC-DC converters. The product lineup includes the TTC008 (for AC100 V power supply) and the TTC012 (for AC200 V power supply), which have a higher current rating than our well received products for the same purpose, the 2SC6010 (for AC100 V power supply) and the 2SC6042 (for AC200 V power supply). Since they have a higher current rating than the previous models, they can be used for higher output AC adaptors.



New PW-Mold2

Features

High-speed switching

High collector-emitter voltage

High current amplification factor (h_{FE}) $h_{FE}=100$ to 200 ($V_{CE}=5V$, $I_C=0.3A$)

The products are standardized for low current ($I_C=1mA$) h_{FE} and so they have excellent low temperature start-up characteristics:
 $h_{FE} = 80$ (min) ($V_{CE}=5V$, $I_C=1mA$)

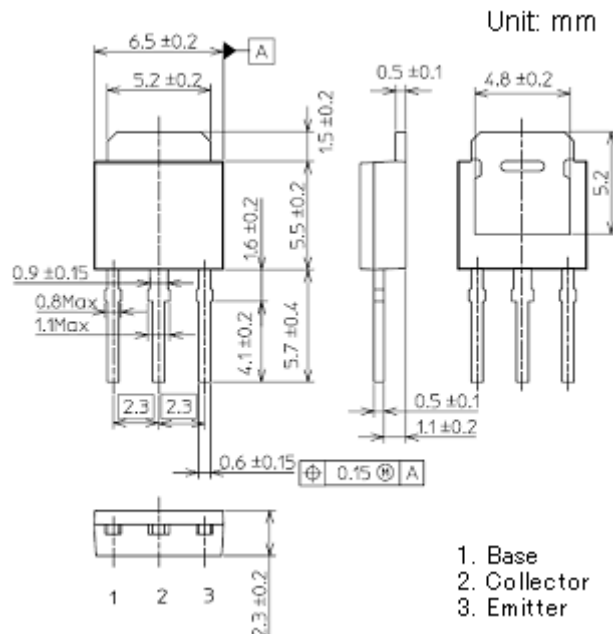
Uses

high-speed high-voltage switching

switching regulators

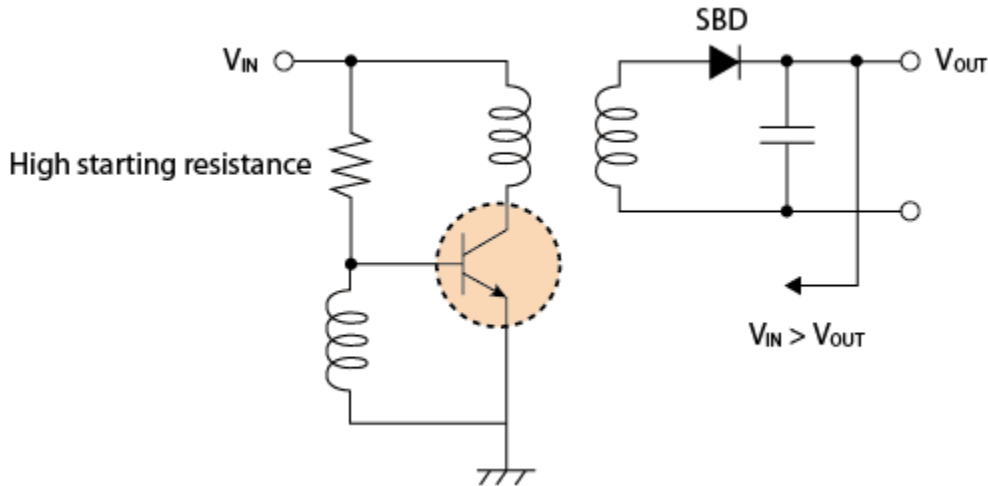
high-speed DC-DC converters

Outline Drawing

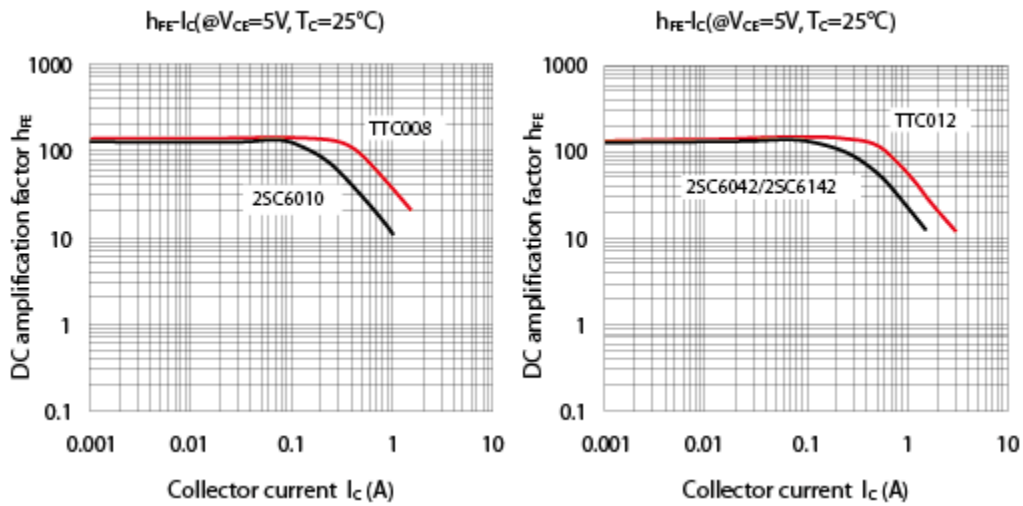


Circuit Example

AC adaptors, self-excited DC-DC converters



Main Specifications



Lineup

Lineup of Bipolar Transistors for AC Adaptors and DC-DC Converters

Purpose	Package	Part number	V_{CBO} (V)	V_{CEO} (V)	I_C (A)	h_{FE}
AC100V power supply	New PW-Mold2	TTC003	600	400	3	20 to 60 (@ $V_{CE}=5V$, $I_C=0.3A$)
		TTC008 ^(*1)	600	285	1.5	100 to 200 (@ $V_{CE}=5V$, $I_C=0.3A$)
	MSTM	2SC6010	600	285	1	100 to 200 (@ $V_{CE}=5V$, $I_C=0.1A$)
		2SC6034	600	285	1	125 to 250 (@ $V_{CE}=5V$, $I_C=0.1A$)
		2SC5930	600	285	1	40 to 100 (@ $V_{CE}=5V$, $I_C=0.2A$)
AC200V power supply	New PW-Mold2	TTC012 ^(*1)	800	375	2	100 to 200 (@ $V_{CE}=5V$, $I_C=0.3A$)
		2SC6142	800	375	1.5	100 to 200 (@ $V_{CE}=5V$, $I_C=0.1A$)
	MSTM	2SC6042	800	375	1	100 to 200 (@ $V_{CE}=5V$, $I_C=0.1A$)
		2SC6040	800	410	1	60 to 120 (@ $V_{CE}=5V$, $I_C=0.1A$)

*1: New product

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