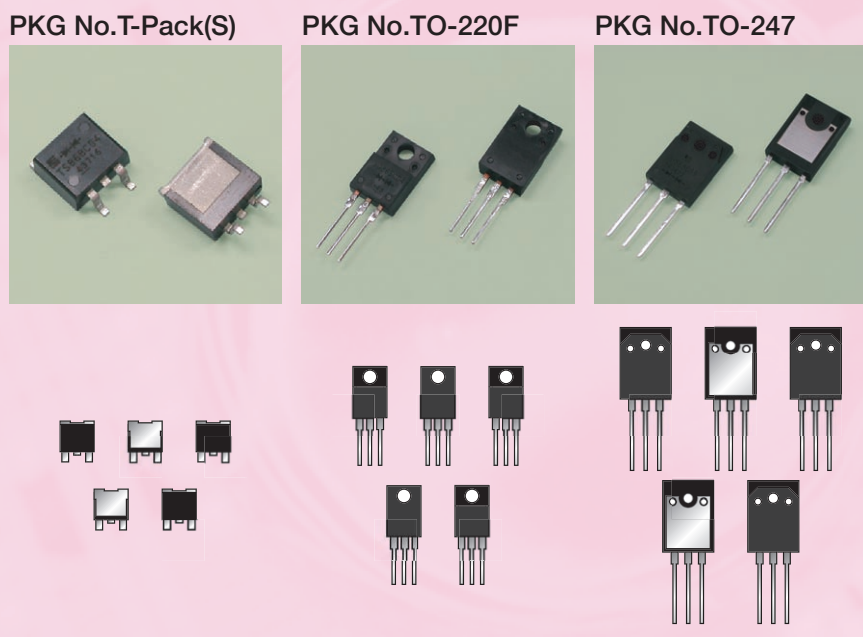


# 低IR SBD

## Low IR SBD



### 对Diode特性要求的2极化

Dipolarization of Characteristics Required from Diodes

- **低VF性**  
电源损耗中的40%是次级整流二极管的VF引起的损耗，要实现高效率化，必须降低VF
- **低IR化**  
以适配器为代表的密封状态且零件高密度化的电源中，前提是超过效率不会造成损坏，不会发生热击穿

- **Low VF characteristics**

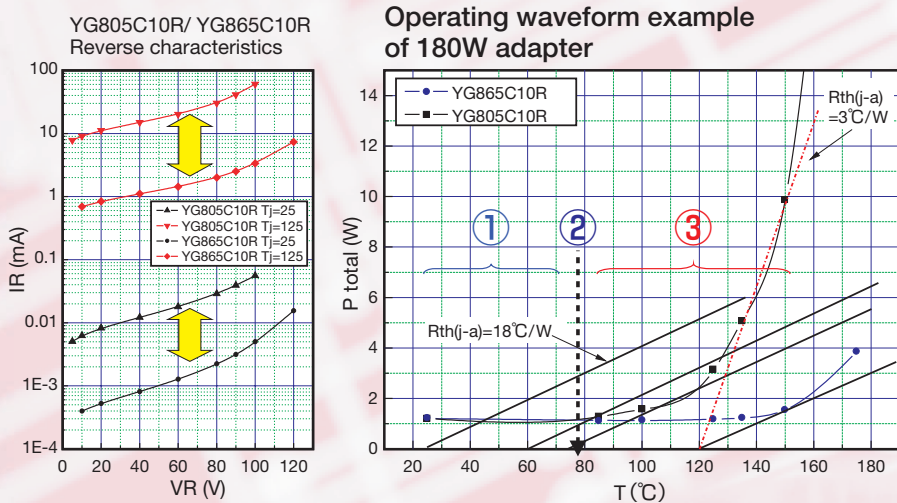
The VF dissipation of the rectification diode on the secondary side occupies 40% of the total dissipation of the power supply. The VF needs to be minimized to increase diode efficiency.

- **Low IR**

Toughness is more essential than efficiency in sealed power supplies with high-density parts, such as adapters. Diodes not prone to thermal runaway are a prerequisite for such power supplies.

### YG805C10R和YG865C10R的差异

Difference between the YG805C10R and the YG865C10R



**Rth = 18°C/W时**

以往产品 ①Ta=60°C: OK ②Ta=75°C: 临界 ③Ta>75°C: 热击穿  
低IR品 ①Ta=110°C: OK ②Ta=120°C: 临界 ③Ta>120°C: 热击穿

**Rth = 18°C/W**

Conventional product ①Ta=60°C max.: OK ②Ta=75°C: Limits ③Ta>75°C: Thermal runaway  
Low IR product ①Ta=110°C max.: OK ②Ta=120°C: Limits ③Ta>120°C: Thermal runaway

### YG805C10R和YG865C10R

YG805C10R and YG865C10R

- **损耗比较 (损耗相同...)**

YG805C10R Tj = 125°C 约3W

YG865C10R Tj = 168°C 约3W

温度差: 可在约43°C的高温下使用

- **热击穿温度 (散热特性相同...)**

YG805C10R Rth(j-c) = 18-°C/W时 Ta=75°C

YG865C10R Rth(j-c) = 18-°C/W时 Ta=120°C

温度差: 可在约45°C的高温下使用

- **Dissipation comparison (with the same loss)**

YG805C10R Tj = 125°C Approximately 3W

YG865C10R Tj = 168°C Abbreviation 3W

Difference in temperature: The maximum operating temperature is approximately 43°C higher.

- **Thermal runaway temperature**

(with the same heat dissipation characteristics)

YG805C10R Rth(j-c) = 18-°C/W Ta=75°C

YG865C10R Rth(j-c) = 18-°C/W Ta=120°C

Difference in temperature: The maximum operating temperature is approximately 45°C higher.

### 高温条件下也不会发生热击穿的低IR SBD

Low IR SBD with no thermal runaway at high temperatures.

VRRM (V)	Package	Io (A)			VRRM (V)	Package	Io (A)		
		10	20	30			10	20	30
120	TO-220	YA862C12R	YA865C12R	YA868C12R	45	TO-220AB	YA862C04R	YA865C04R	YA868C04R
	TO-220F	YG862C12R	YG865C12R	YG868C12R		TO-220F	YG862C04R	YG865C04R	YG868C04R
	T-pack(S)	TS862C12	TS865C12	—		T-pack(S)	TS862C04R	TS865C04R	TS868C04R
150	TO-220	YA862C15R	YA865C15R	YA868C15R	60	TO-220AB	YA862C06R	YA865C06R	YA868C06R
	TO-220F	YG862C15R	YG865C15R	YG868C15R		TO-220F	YG862C06R	YG865C06R	YG868C06R
	T-pack(S)	TS862C15	TS865C15	—		T-pack(S)	TS862C06R	TS865C06R	TS868C06R
	TO-247	—	PH865C15	—		—	—	—	—
250	TO-220	YA872C25R	YA875C25R	—	100	TO-220AB	YA862C10R	YA865C10R	YA868C10R
	TO-220F	YG872C25R	YG875C25R	—		TO-220F	YG862C10R	YG865C10R	YG868C10R
	T-pack(S)	TS872C25	TS875C25	—		T-pack(S)	TS862C10R	TS865C10R	TS868C10R
	TO-247	—	PH875C25	—		—	—	—	—