

# YA846C04 (30A)

(45V / 30A)

## Schottky barrier diode

### Major characteristics

Characteristics	YA846C04	Units	Condition
V <sub>RRM</sub>	45	V	
V <sub>F</sub>	0.4	V	T <sub>j</sub> =125°C, typ
I <sub>o</sub>	30	A	

### Features

- Low V<sub>F</sub>
- Optimized for 3.3V
- 5V output application
- Center tap connection

### Applications

- High frequency operation
- DC-DC converters
- AC adapter

### Maximum ratings and characteristics

- Absolute maximum ratings

Item	Symbol	Conditions	Rating	Unit
Repetitive peak surge reverse voltage	V <sub>RSM</sub>	tw=500ns, duty=1/40	45	V
Repetitive peak reverse voltage	V <sub>RRM</sub>		45	V
Average output current	I <sub>o</sub>	Square wave, duty=1/2 T <sub>c</sub> =98°C	30 *	A
Non-repetitive surge current	I <sub>FSM</sub>	Sine wave 10ms, 1shot	200	A
Operating junction temperature	T <sub>j</sub>		+150	°C
Storage temperature	T <sub>stg</sub>		-40 to +150	°C

\* Average output current at centertap full wave connection

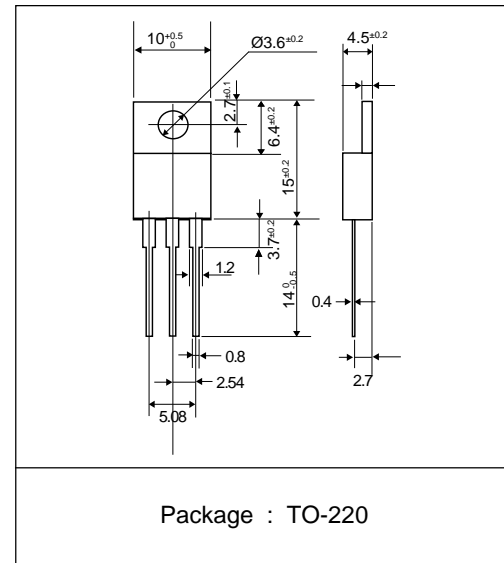
- Electrical characteristics (T<sub>c</sub>=25°C Unless otherwise specified)

Item	Symbol	Conditions	Max.	Unit
Forward voltage drop	V <sub>F</sub>	I <sub>FM</sub> =12.5A	0.55	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =V <sub>RRM</sub>	5.0	mA

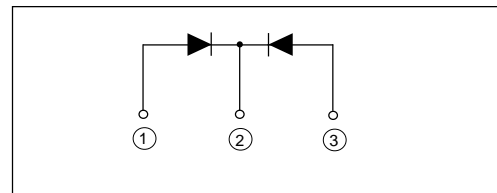
- Electrical characteristics (T<sub>c</sub>=25°C Unless otherwise specified)

Item	Symbol	Condition	Max.	Unit
Thermal resistance	R <sub>th(j-c)</sub>	Junction to case	2.0	°C/W

### Outline drawings, mm

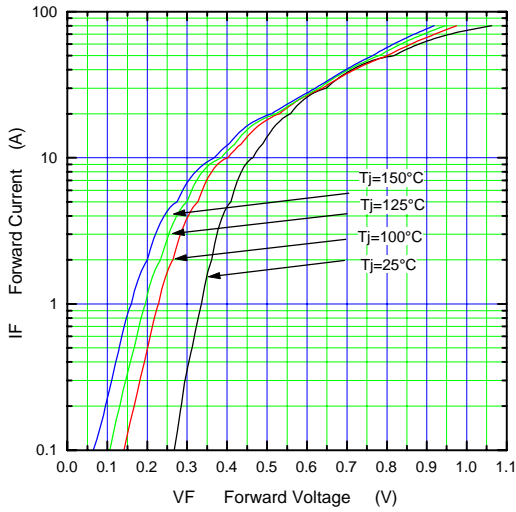


### Connection diagram

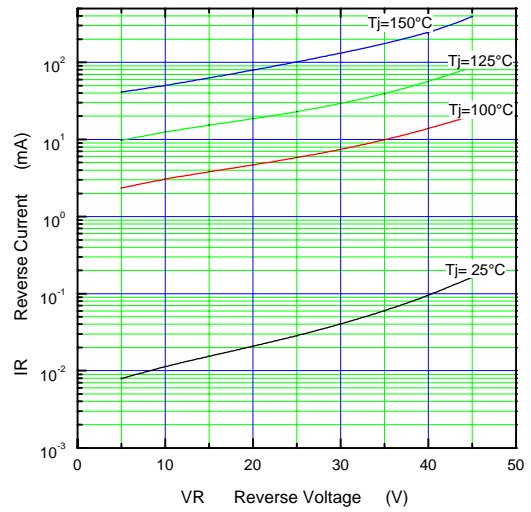


■ Characteristics

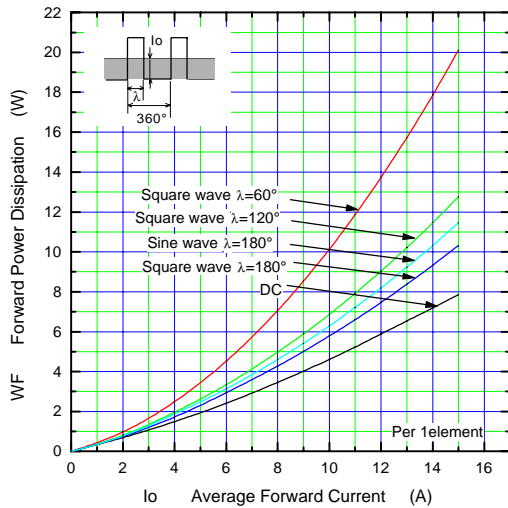
Forward Characteristic (typ.)



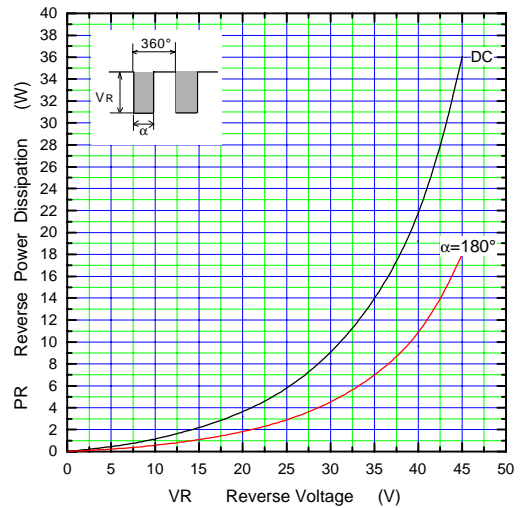
Reverse Characteristic (typ.)



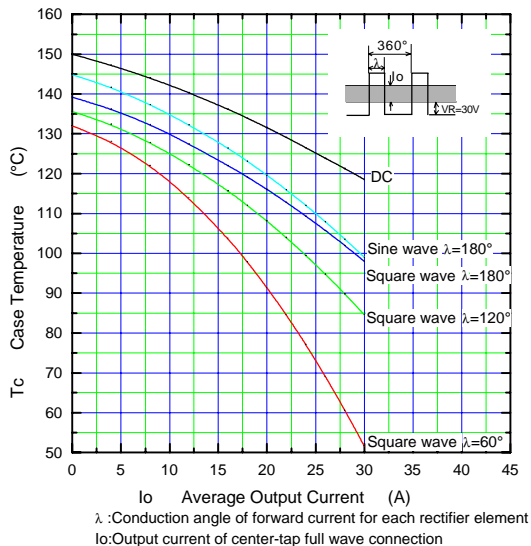
Forward Power Dissipation



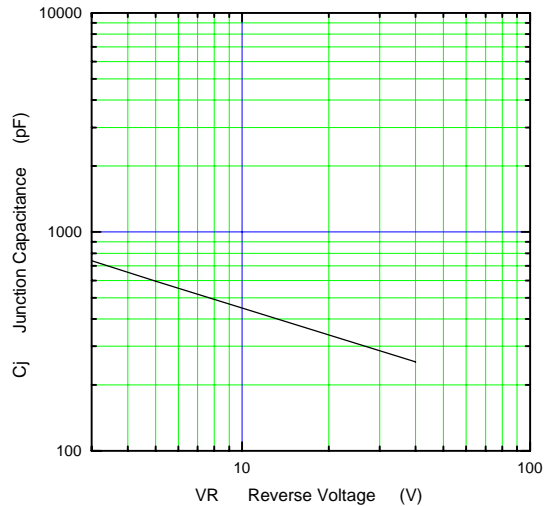
Reverse Power Dissipation



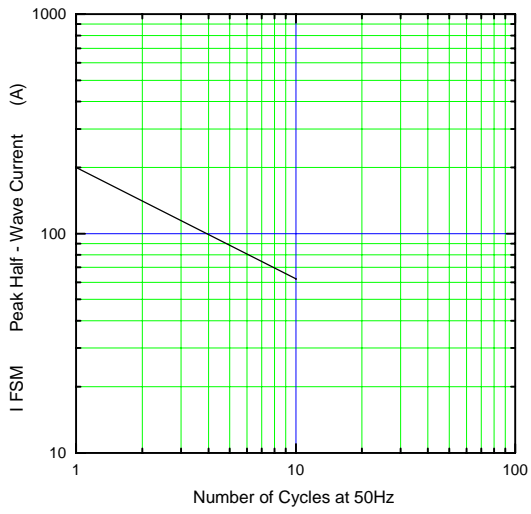
Current Derating (Io-Tc)



Junction Capacitance Characteristic (typ.)



Surge Capability



Transient Thermal Impedance

