YA846C04 (30A)

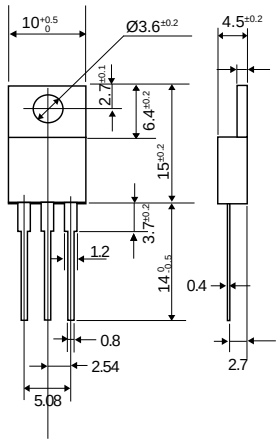
(45V / 30A)

Schottky barrier diode

■ Major characteristics

Characteristics	YA846C04	Units	Condition
V_{RRM}	45	V	
V_F	0.4	V	Tj=125°C, typ
Io	30	A	

■ Outline drawings, mm



Package : TO-220

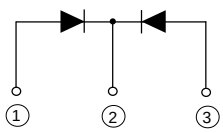
■ Features

- Low V_F
- Optimized for 3.3V
- 5V output application
- Center tap connection

■ Applications

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

■ Connection diagram



■ Maximum ratings and characteristics

● Absolute maximum ratings

Item	Symbol	Conditions	Rating	Unit
Repetitive peak surge reverse voltage	V_{RSM}	tw=500ns, duty=1/40	45	V
Repetitive peak reverse voltage	V_{RRM}		45	V
Average output current	Io	Square wave, duty=1/2 Tc=98°C	30 *	A
Non-repetitive surge current	I_{FSM}	Sine wave 10ms, 1shot	200	A
Operating junction temperature	T_j		+150	°C
Storage temperature	T_{stg}		-40 to +150	°C

* Average output current at centertap full wave connection

● Electrical characteristics (Tc=25°C Unless otherwise specified)

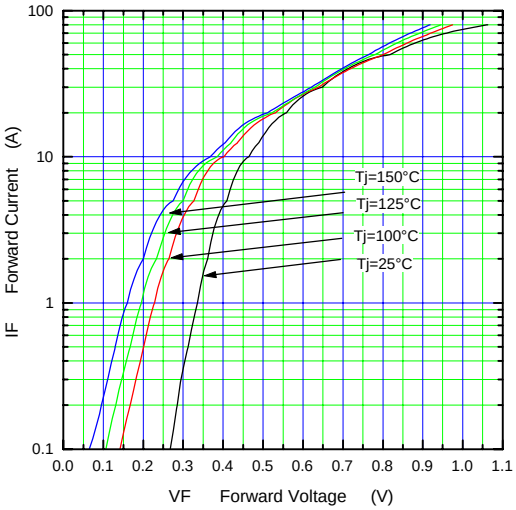
Item	Symbol	Conditions	Max.	Unit
Forward voltage drop	V_F	I_{FM}=12.5A	0.55	V
Reverse current	I_R	$V_R=V_{RRM}$	5.0	mA

● Electrical characteristics (Tc=25°C Unless otherwise specified)

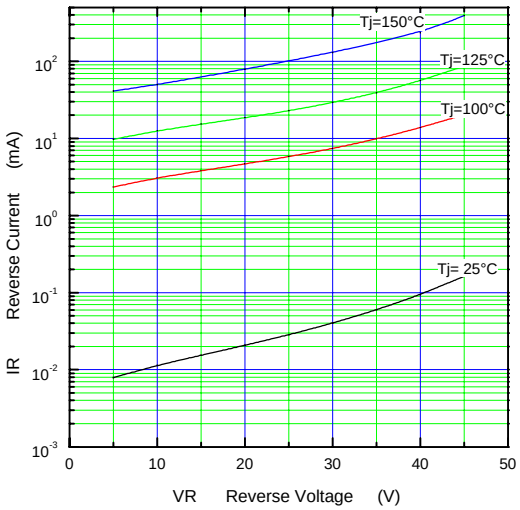
Item	Symbol	Condition	Max.	Unit
Thermal resistance	Rth(j-c)	Junction to case	2.0	°C/W

■ Characteristics

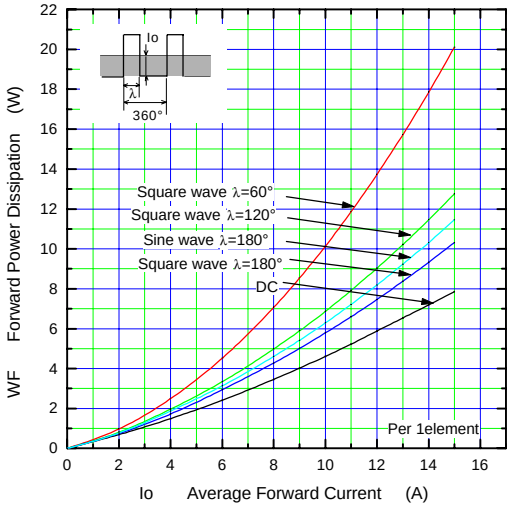
Forward Characteristic (typ.)



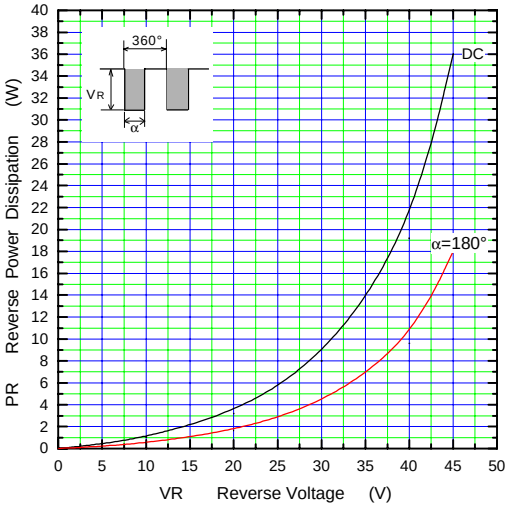
Reverse Characteristic (typ.)



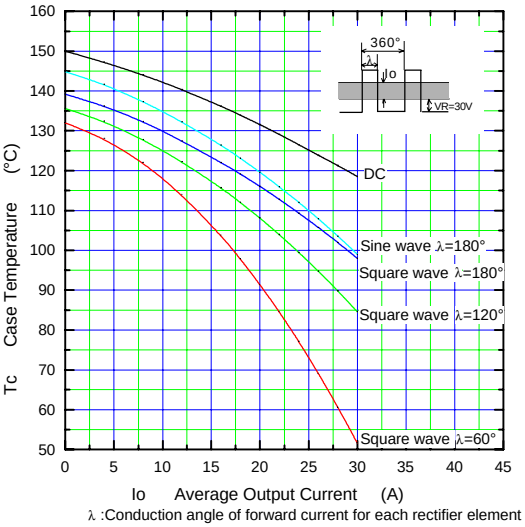
Forward Power Dissipation



Reverse Power Dissipation

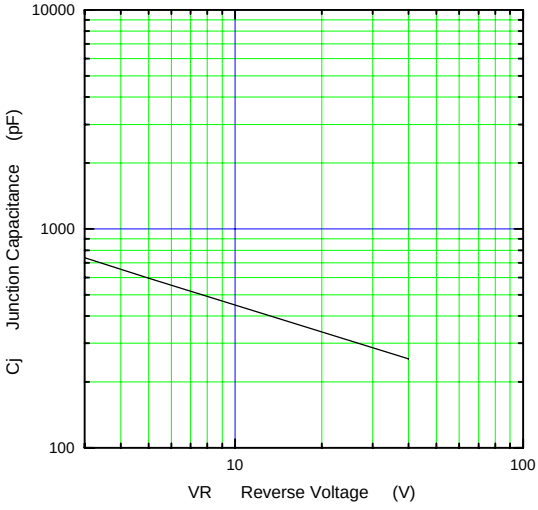


Current Derating (Io-Tc)

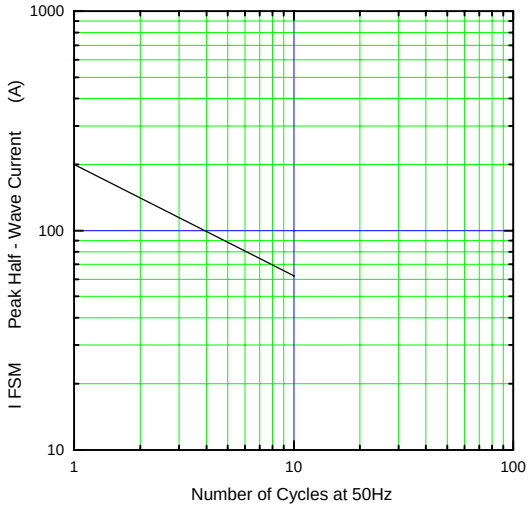


λ :Conduction angle of forward current for each rectifier element
Io:Output current of center-tap full wave connection

Junction Capacitance Characteristic(typ.)



Surge Capability



Transient Thermal Impedance

