

# YA865C04R (45V / 20A)

[200509]

## Low IR Schottky barrier diode

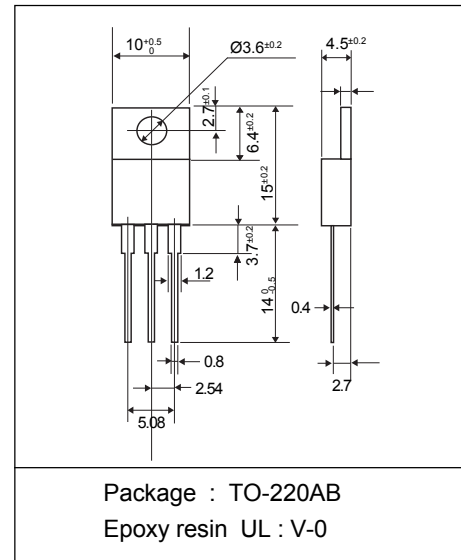
### Features

- Low IR
- Low VF
- Center tap connection

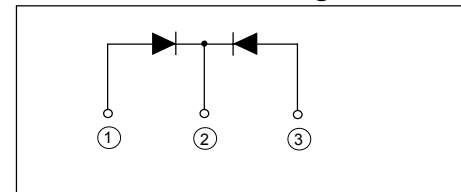
### Applications

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

### Outline drawings, mm



### Connection diagram



### Maximum ratings and characteristics

- Maximum ratings

Item	Symbol	Conditions	Rating	Unit
Repetitive peak surge reverse voltage	$V_{RSM}$	$t_w=500\text{ns}$ , duty=1/40	45	V
Repetitive peak reverse voltage	$V_{RRM}$		45	V
Isolating voltage	Viso	Terminals-to-Case, AC, 1min.	1500	V
Average output current	$I_o$	Square wave, duty=1/2 $T_c=126^\circ\text{C}$	20 *	A
Non-repetitive surge current	$I_{FSM}$	Sine wave 10ms	145	A
non-repetitive reverse surge power dissipation	PRM	$t_w=10\mu\text{s}$ , $T_j=25^\circ\text{C}$	330	W
Operating junction temperature	$T_j$		+150	$^\circ\text{C}$
Storage temperature	$T_{stg}$		-40 to +150	$^\circ\text{C}$

\* Out put current of center tap full wave connection

- Electrical characteristics (at  $T_a=25^\circ\text{C}$  Unless otherwise specified )

Item	Symbol	Conditions	Max.	Unit
Forward voltage **	$V_F$	$I_F=10\text{A}$	0.63	V
Reverse current **	$I_R$	$V_R=40\text{V}$	175	$\mu\text{A}$
Thermal resistance	$R_{th(j-c)}$	Junction to case	1.75	$^\circ\text{C/W}$

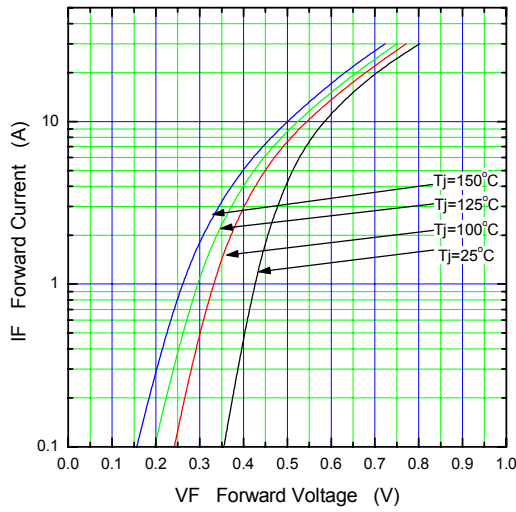
\*\*Rating per element

- Mechanical characteristics

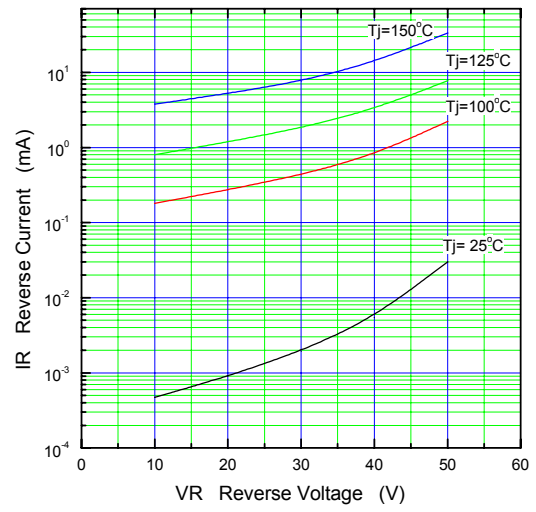
Mounting torque	Recommended torque	0.3 to 0.5	N·m
Approximate mass		2	g

■ Characteristics

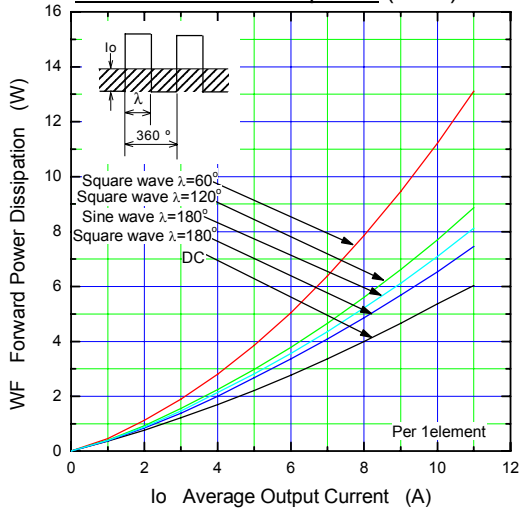
Forward Characteristic (typ.)



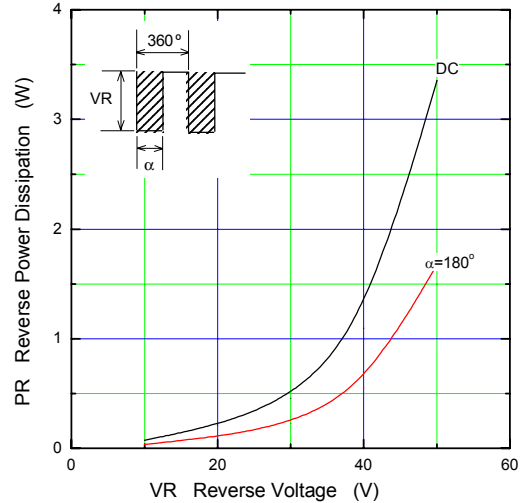
Reverse Characteristic (typ.)



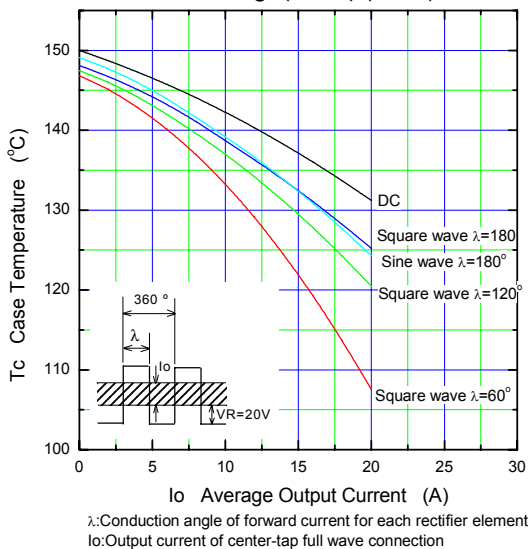
Forward Power Dissipation (max.)



Reverse Power Dissipation (max.)



Current Derating ( $I_o$ - $T_c$ ) (max.)



Junction Capacitance Characteristic (max.)

