

# YA878C10R (100V, 30A)

FUJI Diode

## Ultra Low IR Schottky Barrier Diode

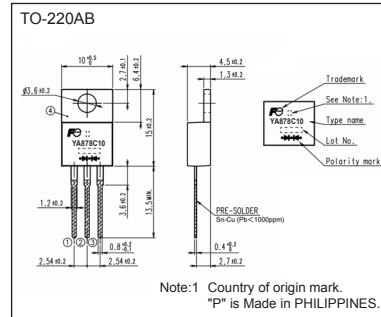
### ■ Features

- Ultra Low IR
- Low  $V_F$
- $T_j$  MAX = 175°C
- High reliability at higher temperatures

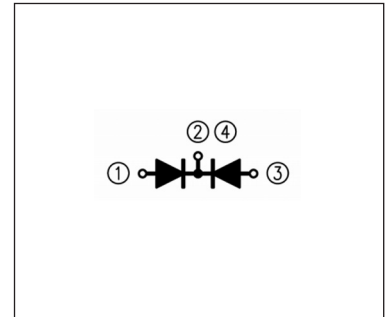
### ■ Applications

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

### ■ Outline Drawings [mm]



### ■ Connection diagram



### ■ Maximum Ratings and Characteristics

#### ● Maximum ratings (at $T_a=25^\circ\text{C}$ Unless otherwise specified)

Item	Symbols	Conditions	Ratings	Units
Repetitive peak reverse voltage	$V_{RRM}$		100	V
Average output current	$I_o$	50Hz Square wave duty =1/2 $T_c = 142^\circ\text{C}$	30 *	A
Non-repetitive surge current **	$I_{FSM}$	Sine wave, 10ms 1shot	160	A
Operating junction temperature	$T_j$		175	$^\circ\text{C}$
Storage temperature	$T_{stg}$		-40 to +175	$^\circ\text{C}$

\*Out put current of center tap full wave connection.  
\*\*Rating per element

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

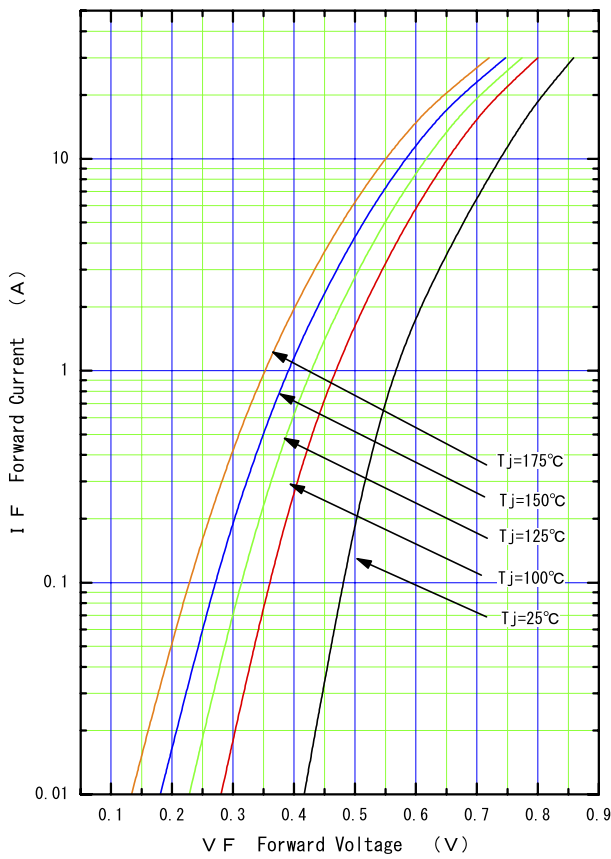
Item	Symbols	Conditions	Maximum	Units
Forward voltage***	$V_F$	$I_F = 15\text{ A}$	0.86	V
Reverse current***	$I_R$	$V_R = V_{RRM}$	30	$\mu\text{A}$
Thermal resistance	$R_{th(j-c)}$	Junction to case	1.25	$^\circ\text{C/W}$

\*\*\*Rating per element

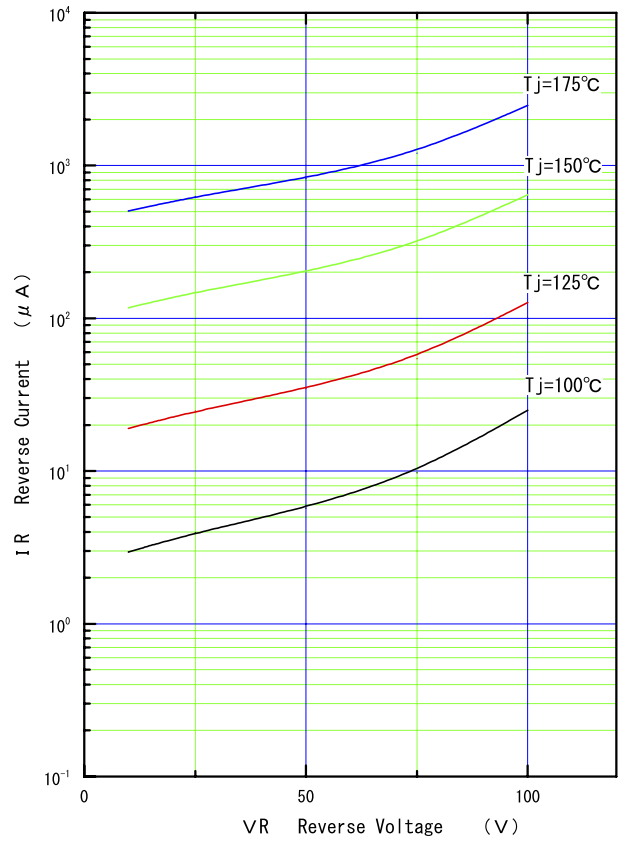
#### ● Mechanical characteristics

Item	Conditions	Ratings	Units
Mounting torque	Recommended torque	0.3 to 0.5	N·m
Approximate mass		2.0	g

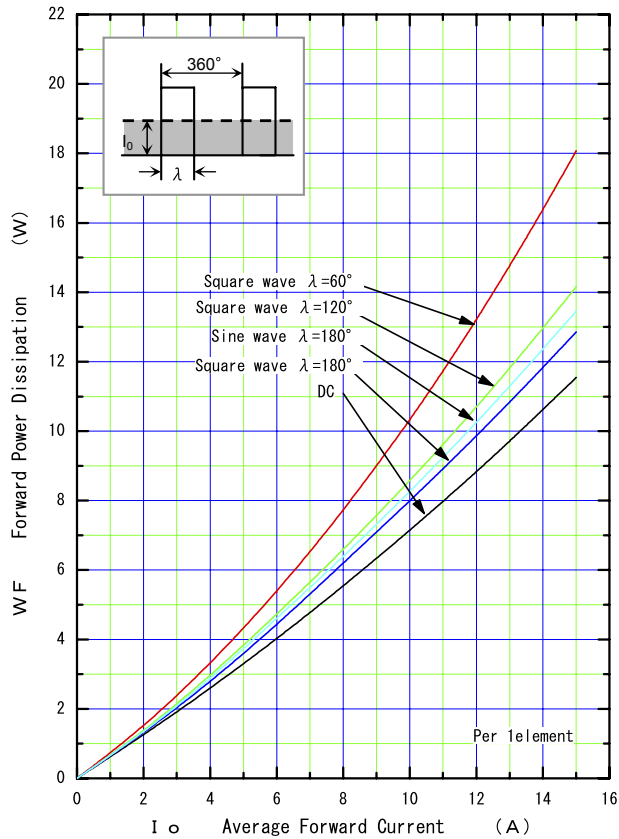
Forward Characteristic (typ.)



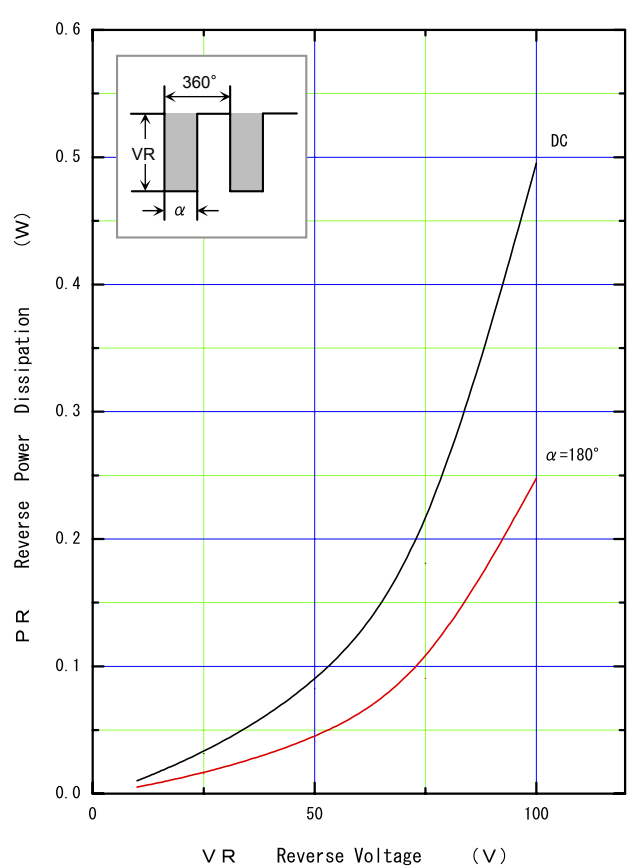
Reverse Characteristic (typ.)



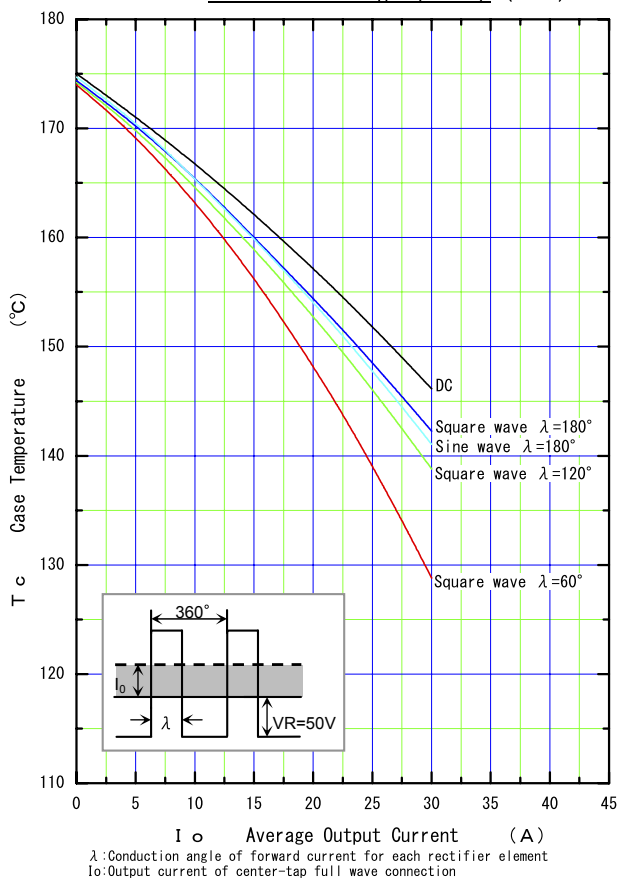
Forward Power Dissipation (max.)



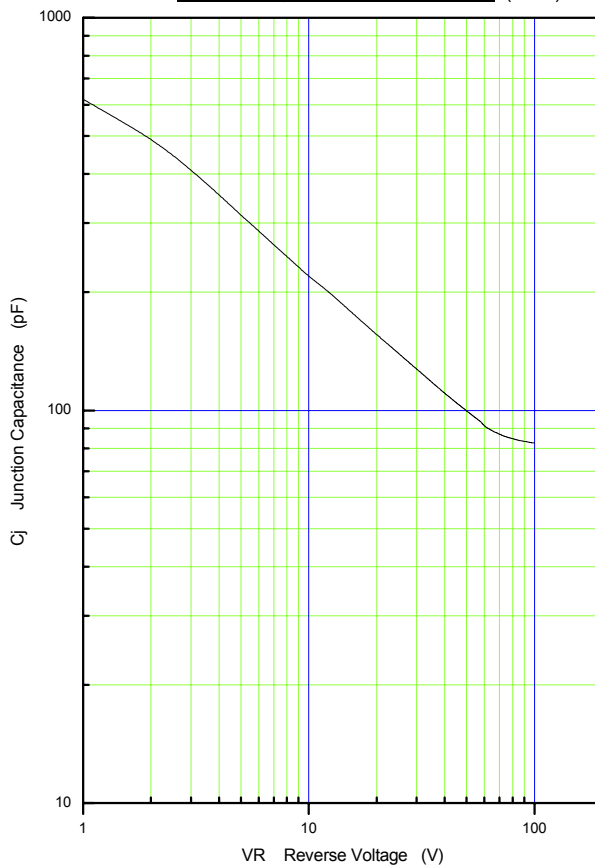
Reverse Power Dissipation (max.)



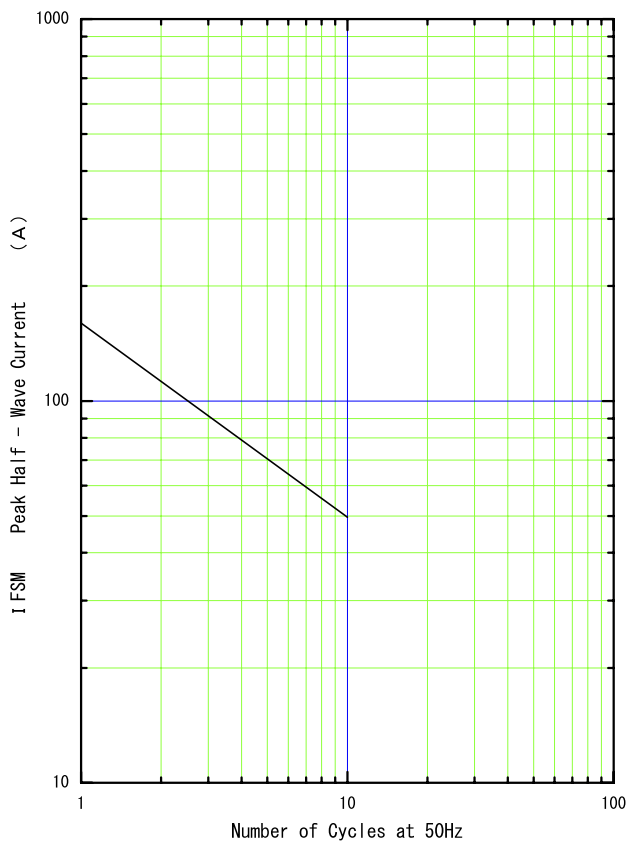
Current Derating (Io-Tc) (max.)

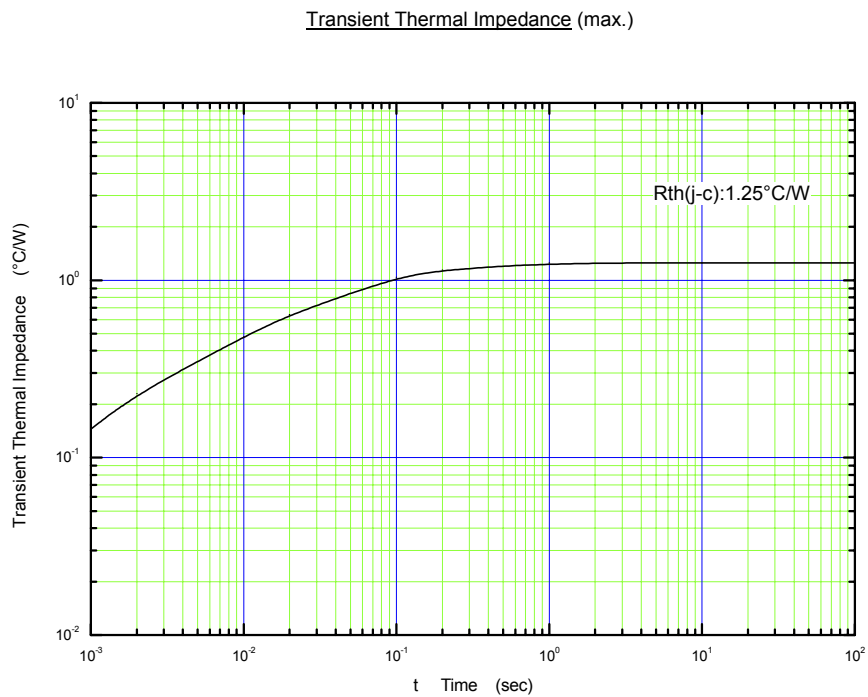
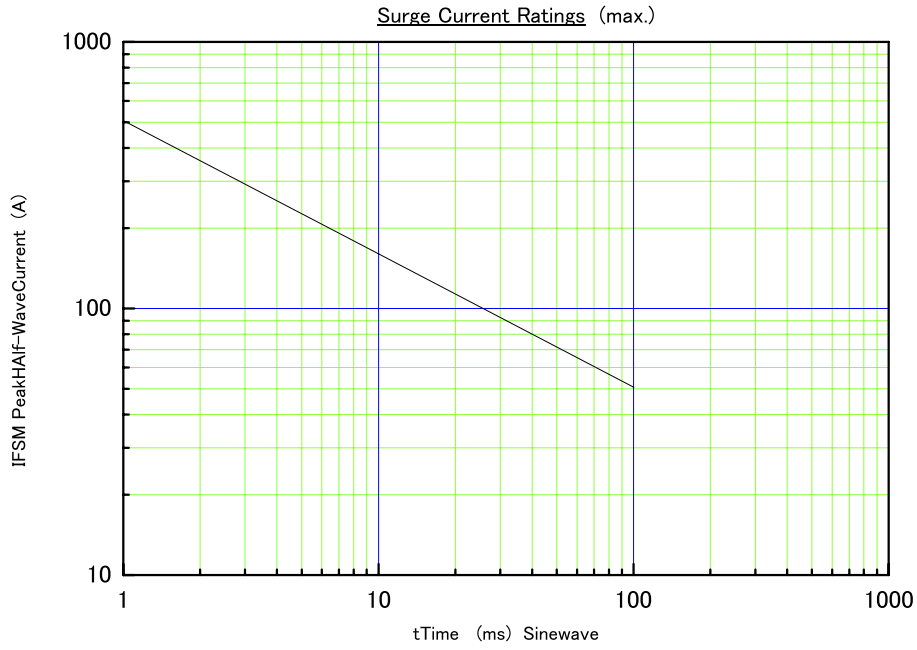


Junction Capacitance Characteristic (max.)



Surge Capability (max.)





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  - Measurement equipment
  - Machine tools
  - Audiovisual equipment
  - Electrical home appliances
  - Personal equipment
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  - Safety devices
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