

YA878C12R (120V, 30A)

FUJI Diode

Ultra Low IR Schottky Barrier Diode

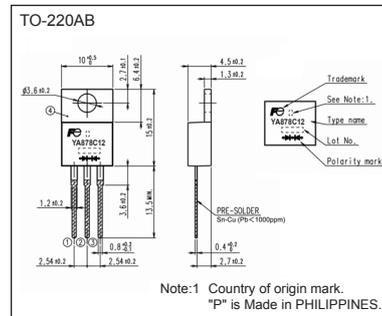
■ Features

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

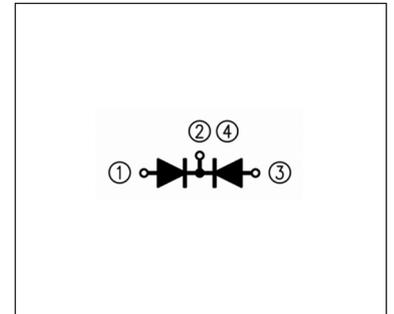
■ Applications

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

■ Outline Drawings [mm]



■ Connection diagram



■ Maximum Ratings and Characteristics

● Maximum ratings (at Ta=25°C Unless otherwise specified)

Item	Symbols	Conditions	Ratings	Units
Repetitive peak reverse voltage	V_{RRM}		120	V
Average output current	I_O	50Hz Square wave duty =1/2 $T_c = 141^\circ\text{C}$	30 *	A
Non-repetitive surge current **	I_{FSM}	Sine wave, 10ms 1shot	160	A
Operating junction temperature	T_j		175	°C
Storage temperature	T_{stg}		-40 to +175	°C

*Out put current of center tap full wave connection.

**Rating per element

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

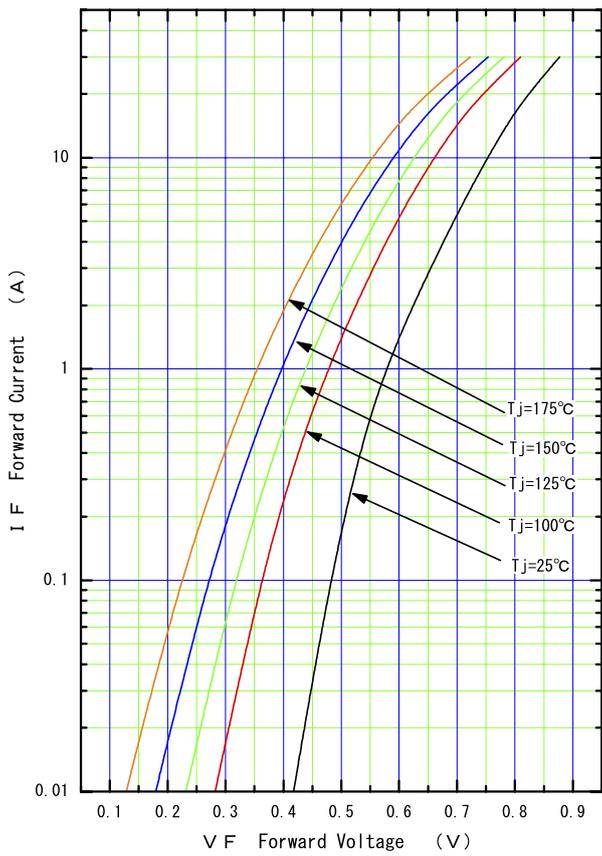
Item	Symbols	Conditions	Maximum	Units
Forward voltage***	V_F	$I_F = 15\text{ A}$	0.88	V
Reverse current***	I_R	$V_R = V_{RRM}$	30	μA
Thermal resistance	$R_{th(j-c)}$	Junction to case	1.25	°C/W

***Rating per element

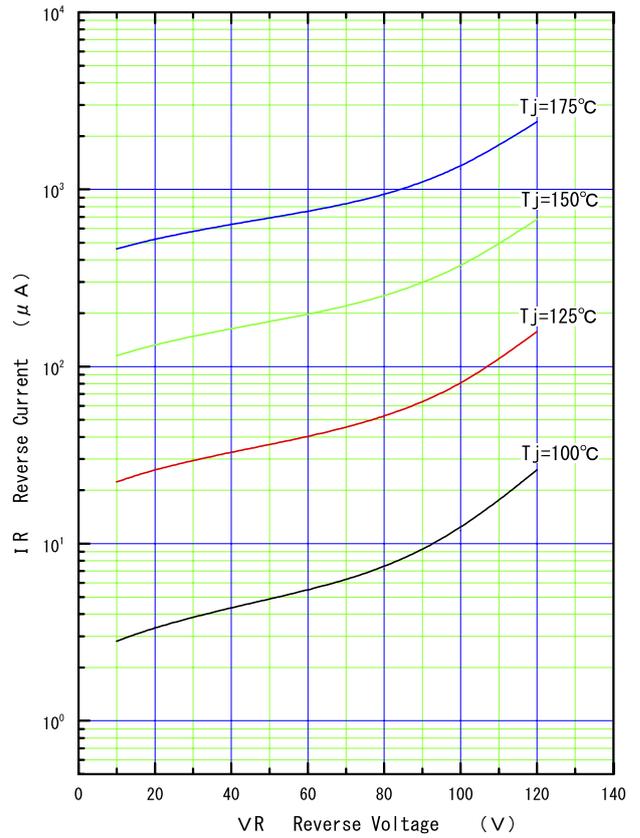
● Mechanical characteristics

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

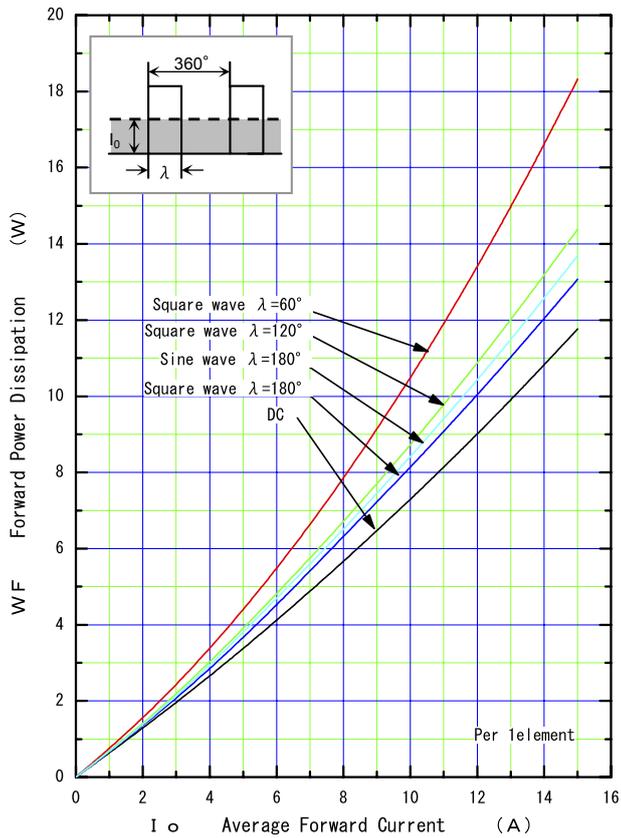
Forward Characteristic (typ.)



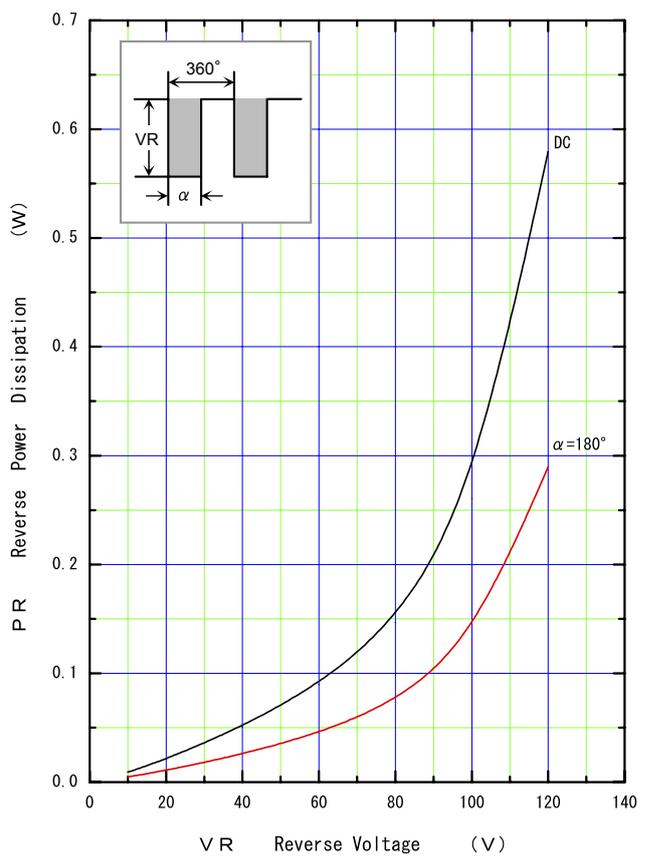
Reverse Characteristic (typ.)



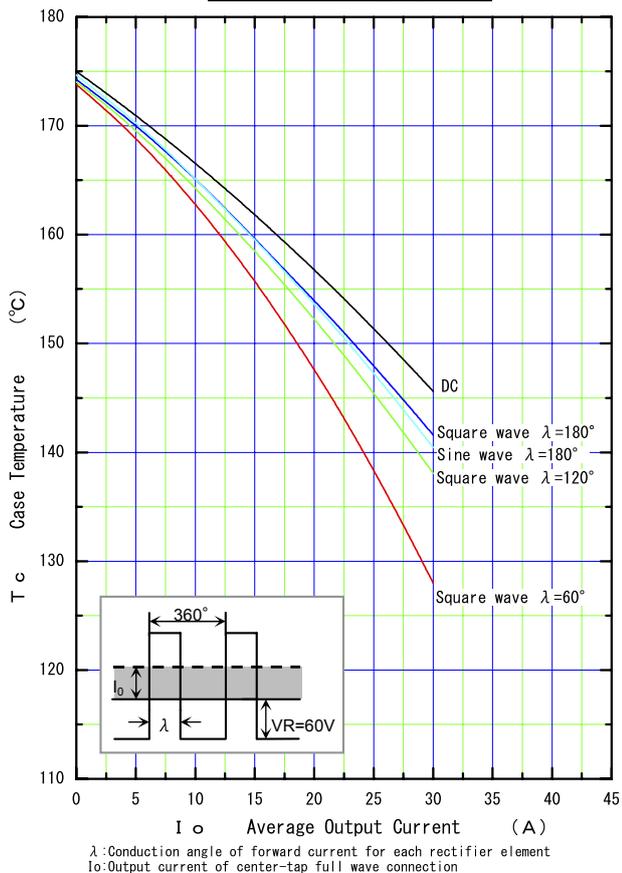
Forward Power Dissipation (max.)



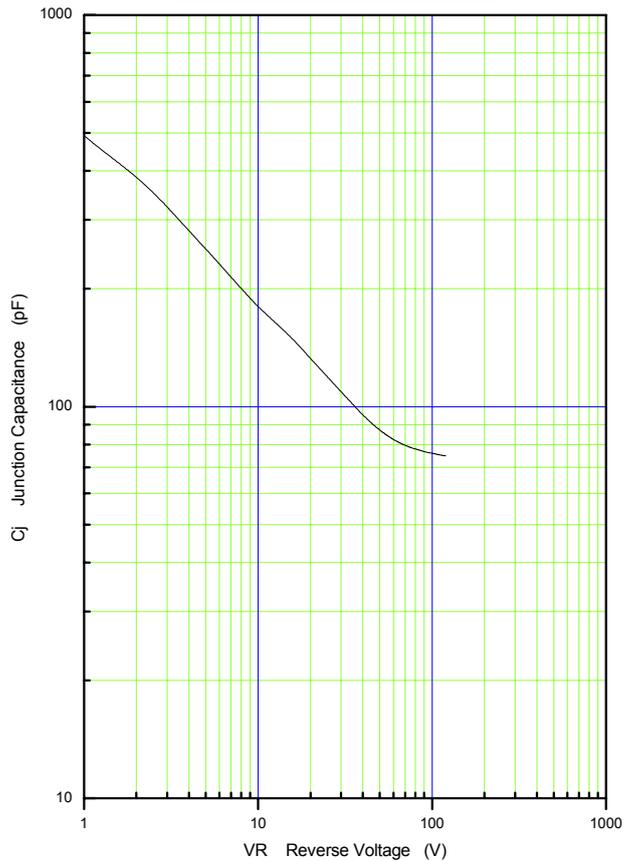
Reverse Power Dissipation (max.)



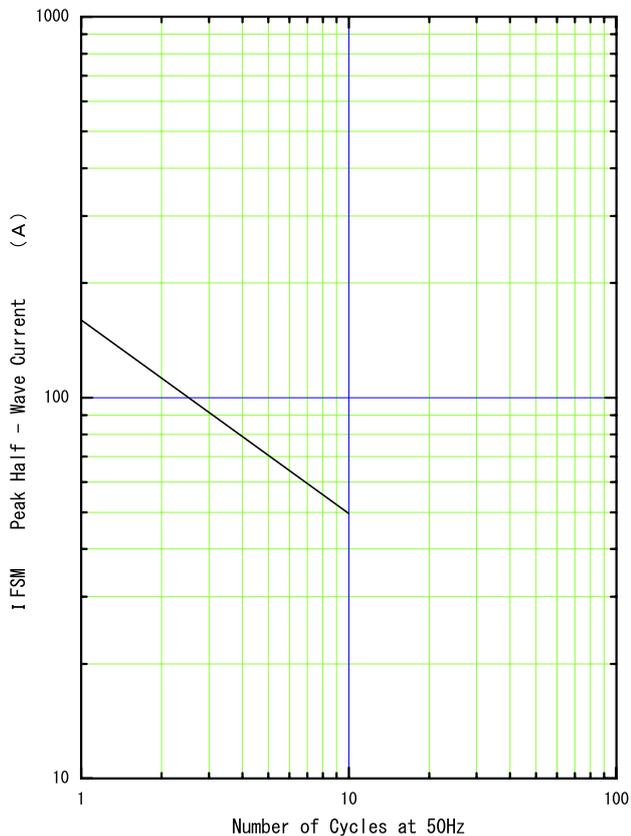
Current Derating (I_o-T_c) (max.)

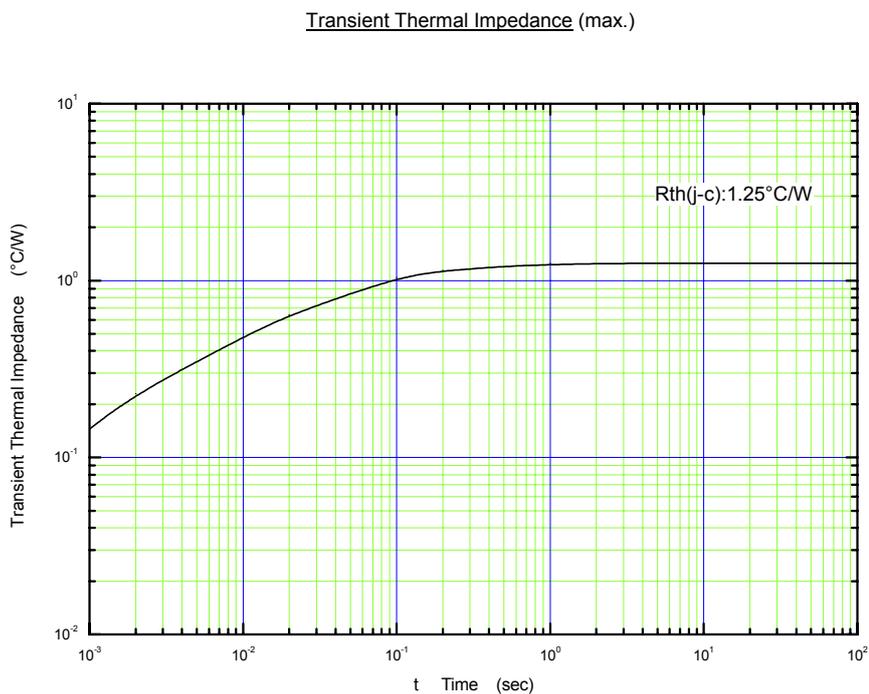
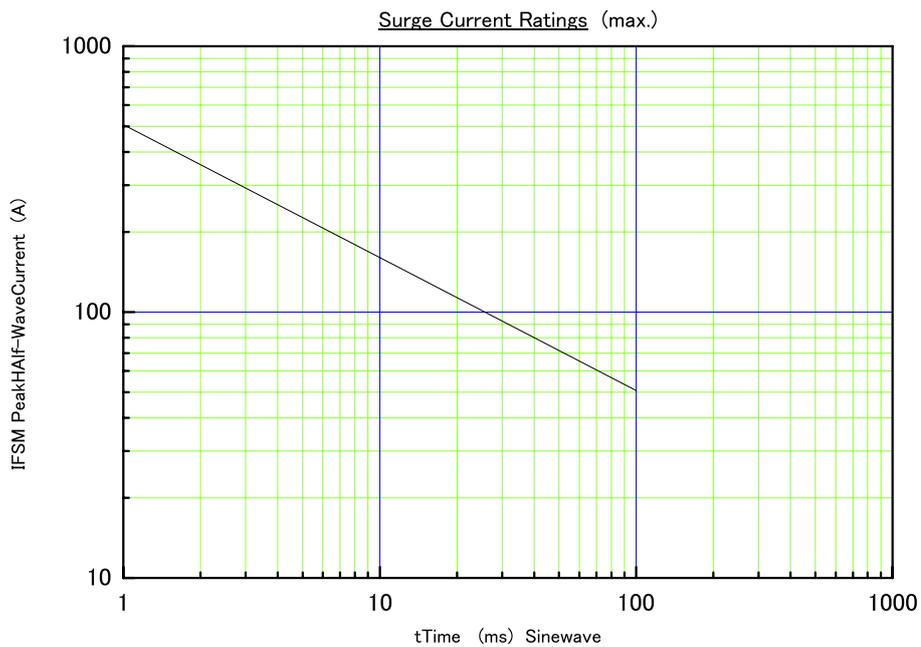


Junction Capacitance Characteristic (max.)



Surge Capability (max.)





WARNING

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 - Machine tools
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 - Electrical home appliances
 - Personal equipment
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 - Safety devices
 - Medical equipment
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