

# TP865C15R (20A)

(150V / 20A)

[0401]

## High Voltage Schottky barrier diode

### Major characteristics

Characteristics	TP865C15R	Units	Condition
V <sub>RRM</sub>	150	V	
V <sub>F</sub>	0.90	V	T <sub>c</sub> =25°C MAX.
I <sub>o</sub>	20	A	

### Features

- Low V<sub>F</sub>
- High Voltage
- Center tap connection

### Applications

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

### Maximum ratings and characteristics

- Absolute maximum ratings (at T<sub>c</sub>=25°C Unless otherwise specified)

Item	Symbol	Conditions	Rating	Unit
Repetitive peak surge reverse voltage	V <sub>RSM</sub>	tw=500ns, duty=1/40	150	V
Repetitive peak reverse voltage	V <sub>RRM</sub>		150	V
Average output current	I <sub>o</sub>	Square wave, duty=1/2 T <sub>c</sub> =115°C	20 *	A
Non-repetitive surge current **	I <sub>FSM</sub>	Sine wave 10ms 1shot	150	A
Operating junction temperature	T <sub>j</sub>		+150	°C
Storage temperature	T <sub>stg</sub>		-40 to +150	°C

\* Out put current of center tap full wave connection

\*\*Rating per element

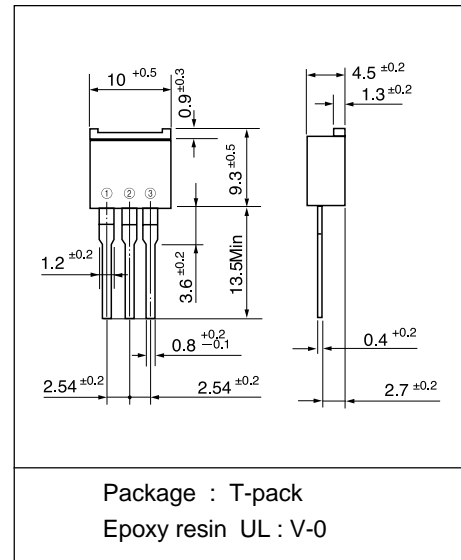
- Electrical characteristics (at T<sub>c</sub>=25°C Unless otherwise specified)

Item	Symbol	Conditions	Max.	Unit
Forward voltage drop	V <sub>F</sub>	I <sub>FM</sub> =10A	0.90	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =V <sub>RRM</sub>	150	μA
Thermal resistance	R <sub>th(j-c)</sub>	Junction to case	1.25	°C/W

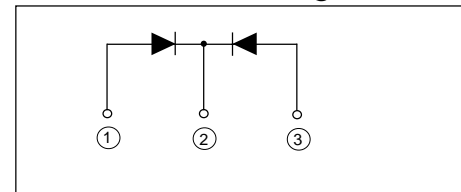
- Mechanical characteristics

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

### Outline drawings, mm

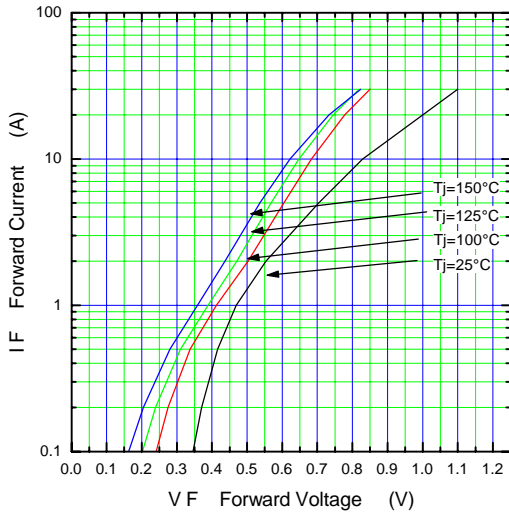


### Connection diagram

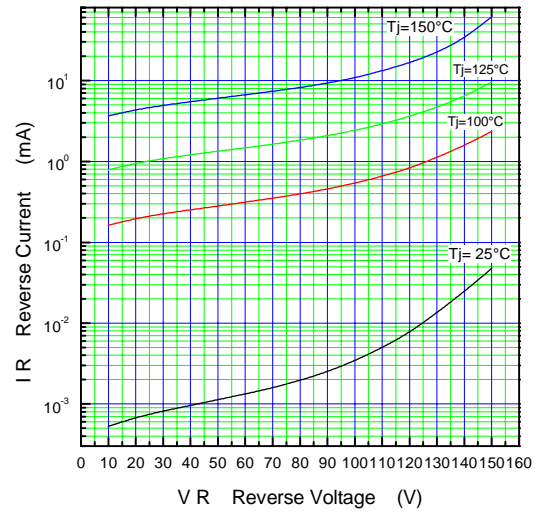


Characteristics

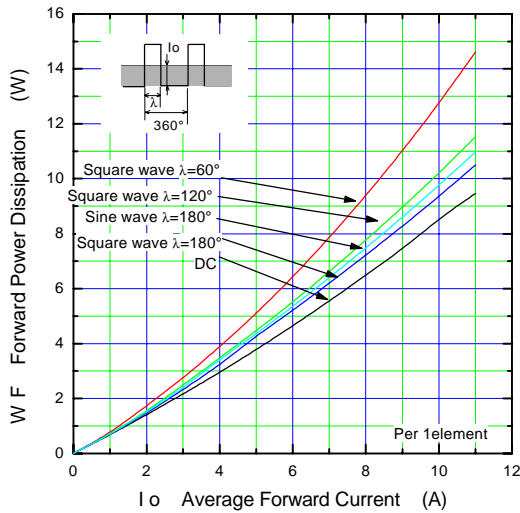
Forward Characteristic (typ.)



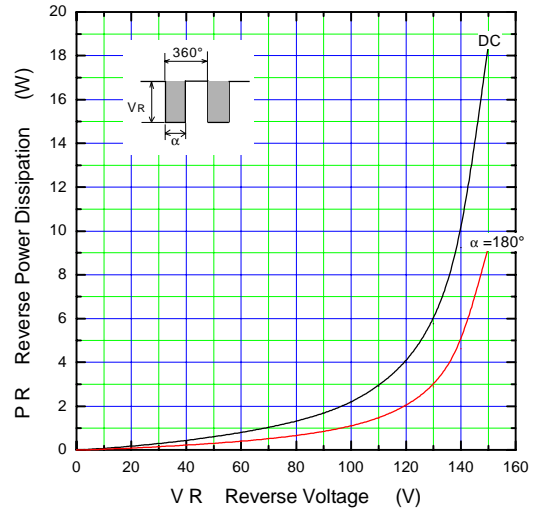
Reverse Characteristic (typ.)



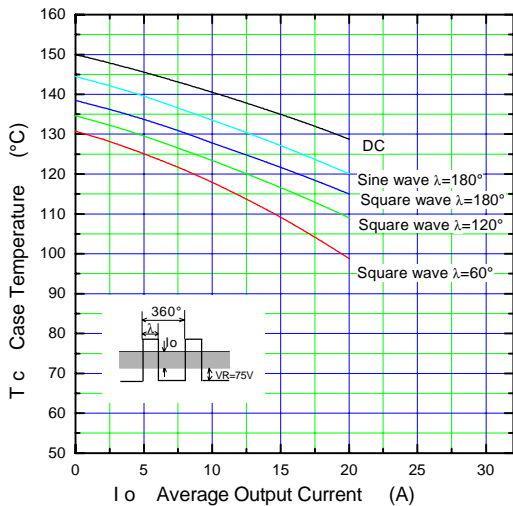
Forward Power Dissipation (max.)



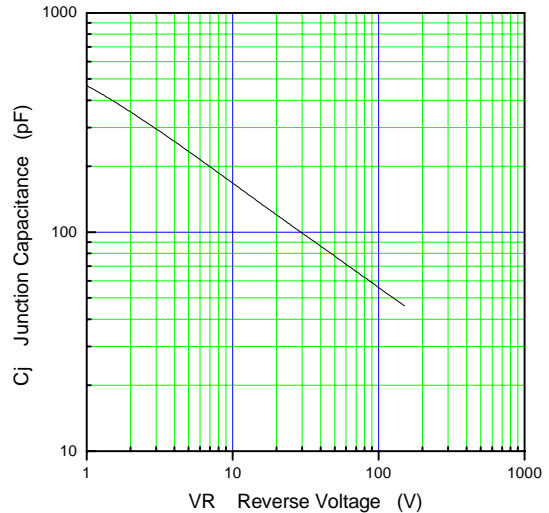
Reverse Power Dissipation (max.)



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

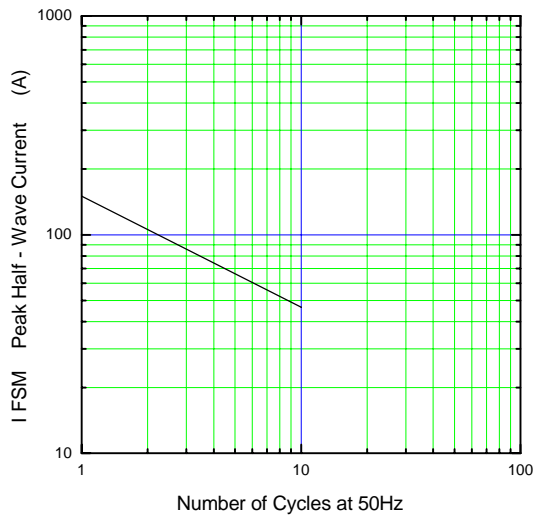


Junction Capacitance Characteristic (max.)

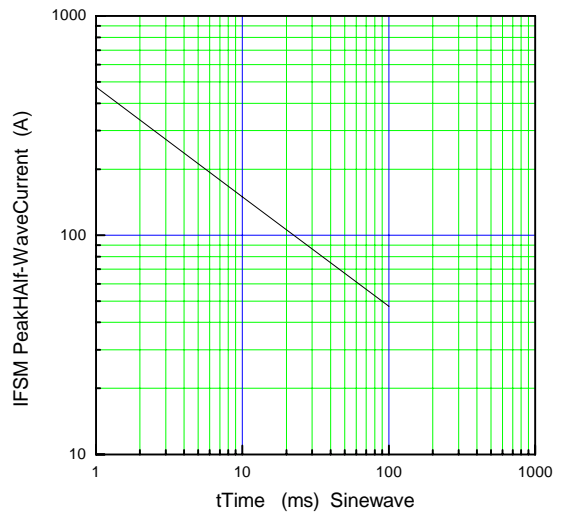


$\lambda$ : Conduction angle of forward current for each rectifier element  
 $I_o$ : Output current of center-tap full wave connection

Surge Capability (max.)



Surge Current Ratings (max.)



Transient Thermal Impedance (max.)

