TP865C12R (20A) (120V / 20A)

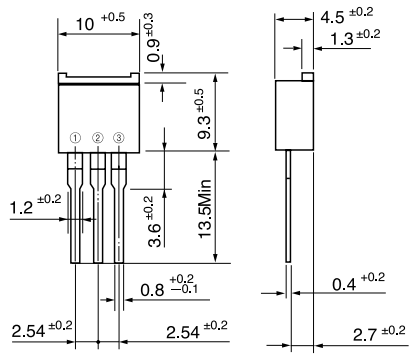
[0401]

High Voltage Schottky barrier diode

■ Major characteristics

Characteristics	TP865C12R	Units	Condition
V_{RRM}	120	V	
V_F	0.88	V	Tc=25°C MAX.
I_O	20	A	

■ Outline drawings, mm



Package : T-pack
Epoxy resin UL : V-0

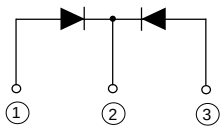
■ Features

- Low V_F
- High Voltage
- Center tap connection

■ Applications

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

■ Connection diagram



■ Maximum ratings and characteristics

● Absolute maximum ratings (at Tc=25°C Unless otherwise specified)

Item	Symbol	Conditions	Rating	Unit
Repetitive peak surge reverse voltage	V_{RSM}	tw=500ns, duty=1/40	120	V
Repetitive peak reverse voltage	V_{RRM}		120	V
Average output current	I_O	Square wave, duty=1/2 Tc=126°C	20 *	A
Non-repetitive surge current **	I_{FSM}	Sine wave 10ms 1shot	150	A
Operating junction temperature	T_j		+150	°C
Storage temperature	T_{stg}		-40 to +150	°C

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

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

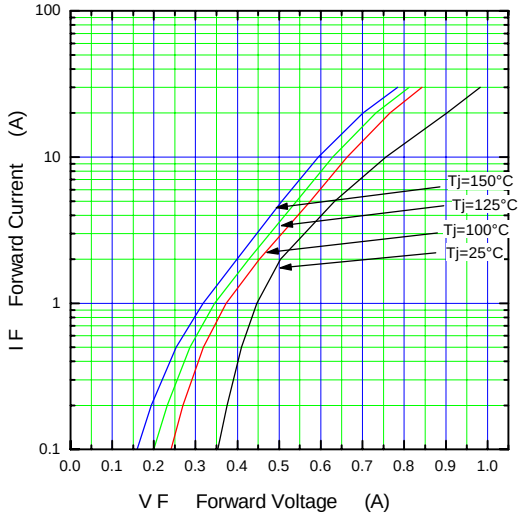
Item	Symbol	Conditions	Max.	Unit
Forward voltage drop	V_F	I_{FM}=10A	0.88	V
Reverse current	I_R	V_R=V_{RRM}	150	µA
Thermal resistance	Rth(j-c)	Junction to case	1.25	°C/W

● Mechanical characteristics

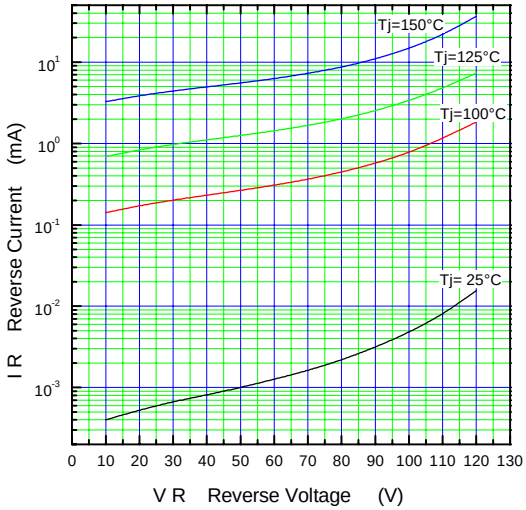
Mounting torque	Recommended torque	0.3 to 0.5	N·m
Approximate mass		2	g

■ Characteristics

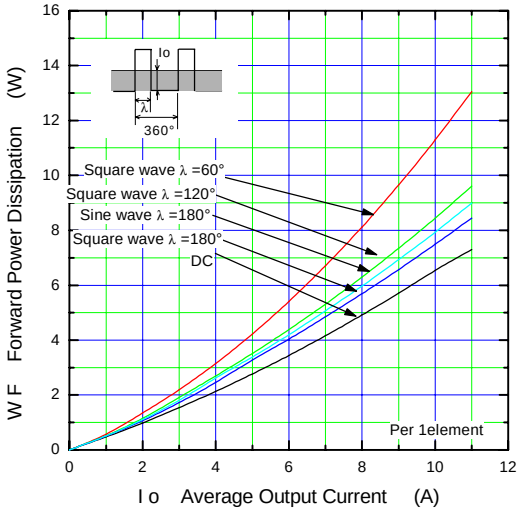
Forward Characteristic (typ.)



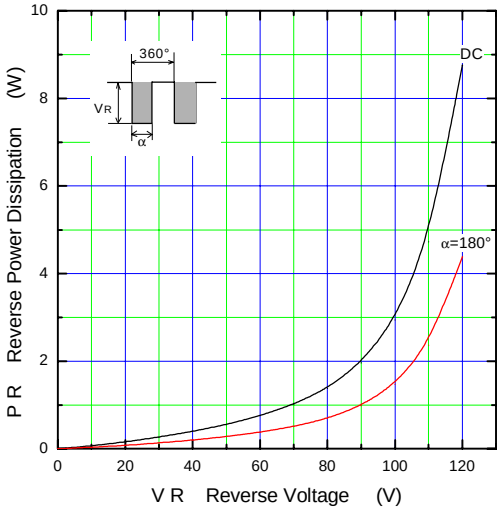
Reverse Characteristic (typ.)



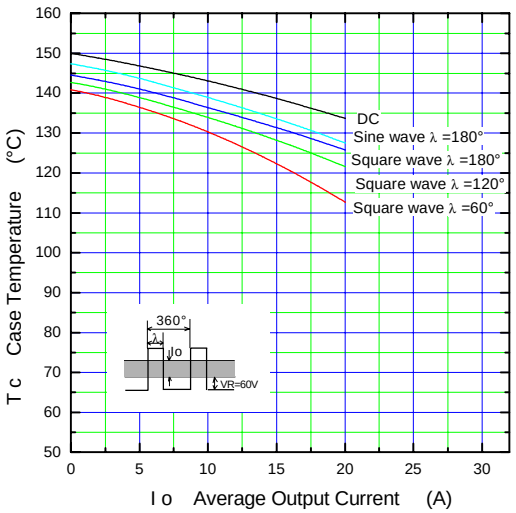
Forward Power Dissipation (max.)



Reverse Power Dissipation (max.)

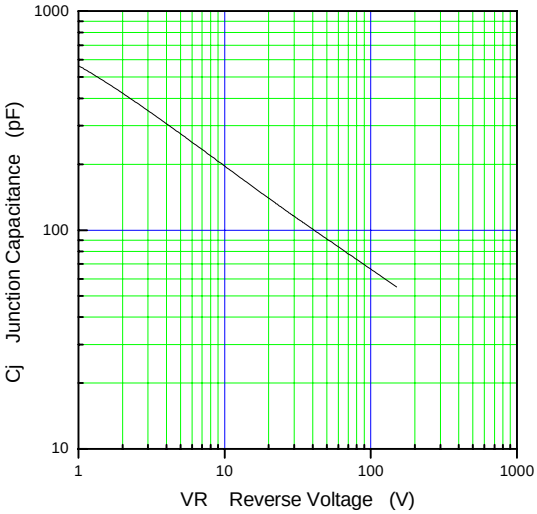


Current Derating (Io-Tc) (max.)

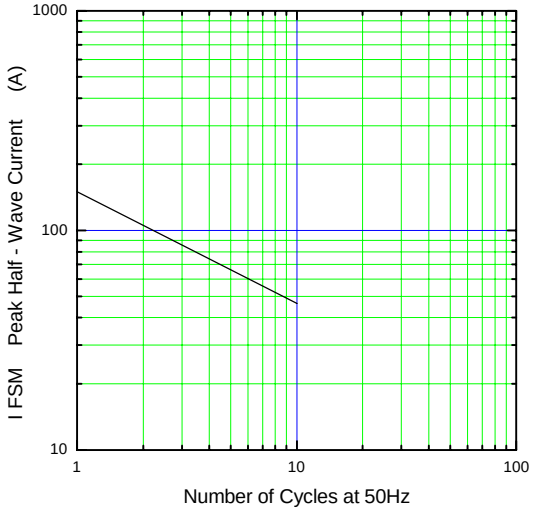


λ:Conduction angle of forward current for each rectifier element
Io:Output current of center-tap full wave connection

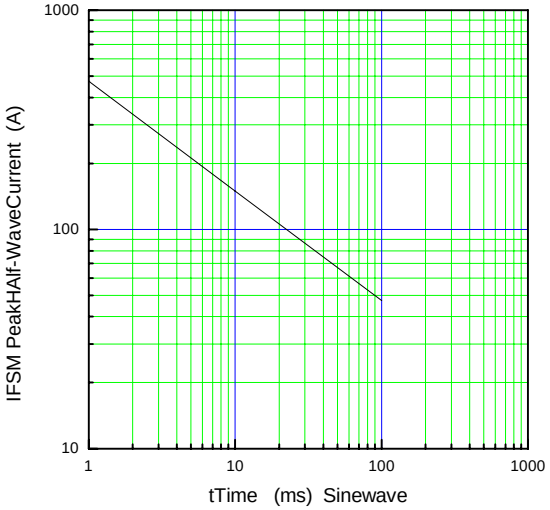
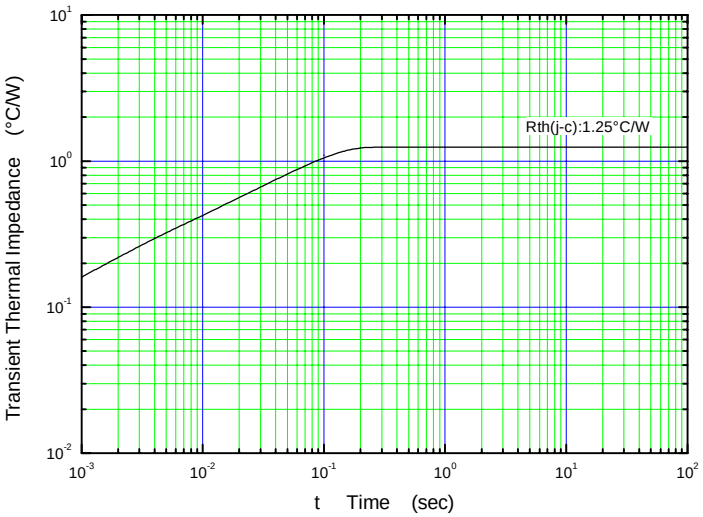
Junction Capacitance Characteristic (max.)



Surge Capability (max.)



Surge Current Ratings (max.)



Transient Thermal Impedance (max.)