YG975C6R (Io 20A)

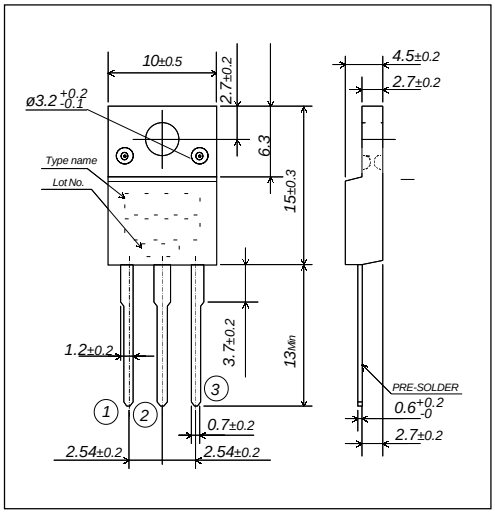
[0311]

Super LLD2 Series

(For PFC circut)

LOW LOSS SUPER HIGH SPEED RECTIFIER

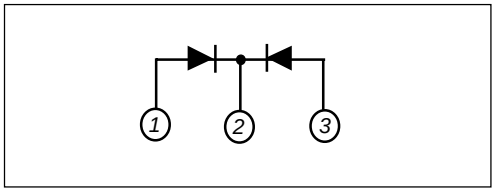
■ Outline drawings, mm



■ Features

- Insulated package by fully molding
- Super high speed switching
- High reliability by planer design

Connection diagram



■ Applications

- PFC circuit (current discontinuous mode)

■ Maximum ratings and characteristics

● Absolute maximum ratings

Item	Symbol	Conditions	Rating	Unit
Repetitive peak reverse voltage	V_{RRM}		600	V
Isolation voltage	Viso		1500	V
Average output current	I_O	duty=1/2, Tc=89°C Square wave	20*	A
Non-Repetitive surge current **	I_{FSM}	Sine wave10ms	100	A
Operating junction temperature	T_j		150	°C
Storage temperature	T_{stg}		-40 to +150	°C

*Out put current of centertap full wave connection

** Rating per 1 element

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

Item	Symbol	Conditions	Characteristics	Unit
Forward voltage ***	V_F	I_F=10A	Max. 1.55	V
Reverse current ***	I_R	V_R=V_{RRM}	Max. 10.0	μA
Reverse recovery time ***	t rr	I_F=0.1A, I_R=0.2A, Irec=0.05A	Max. 50.0	ns
Thermal resistance	Rth(j-c)	Junction to case	Max. 1.75	°C/W

*** Rating per 1 element

● Mechanical characteristics

Mouunting torque	Recommended torque	0.3 to 0.5	N·m
Approximate mass		2.0	g

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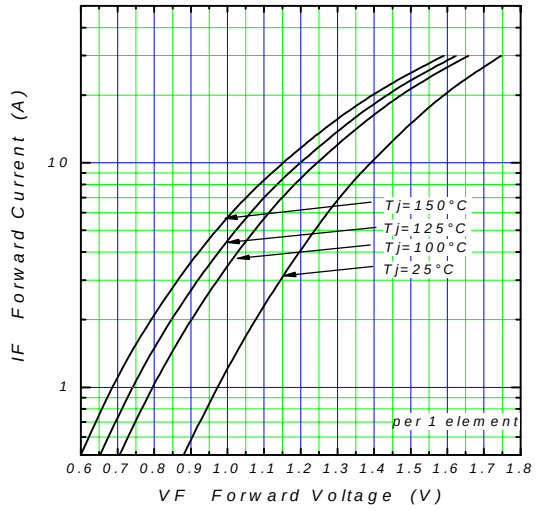
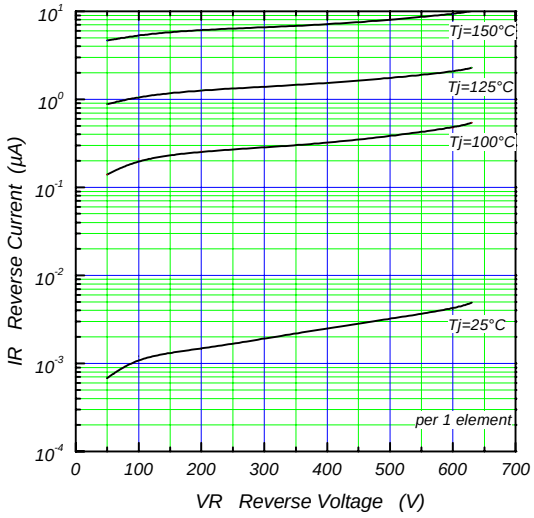
■ Characteristics

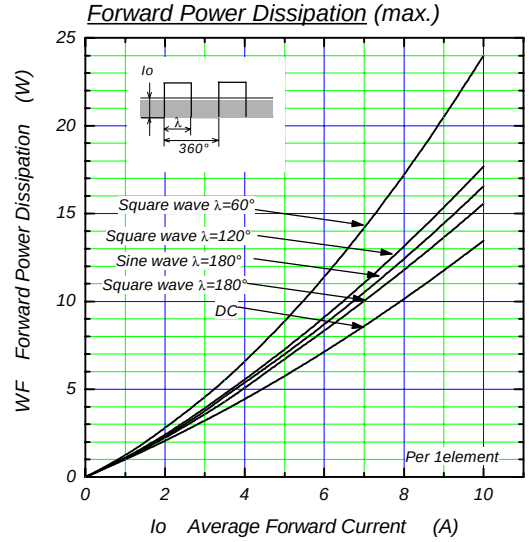
Forward characteristic (typ.)



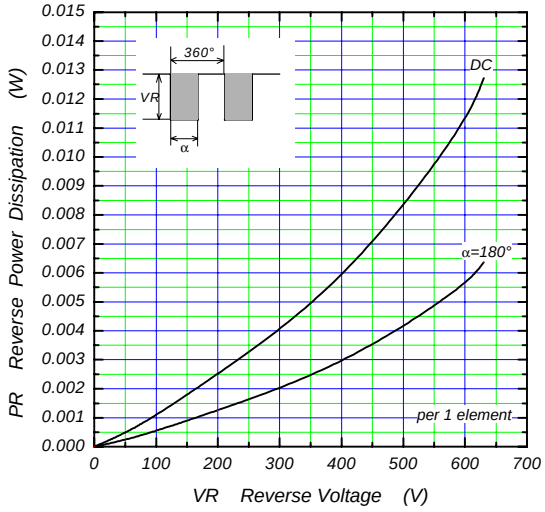
Reverse Characteristic (typ.)



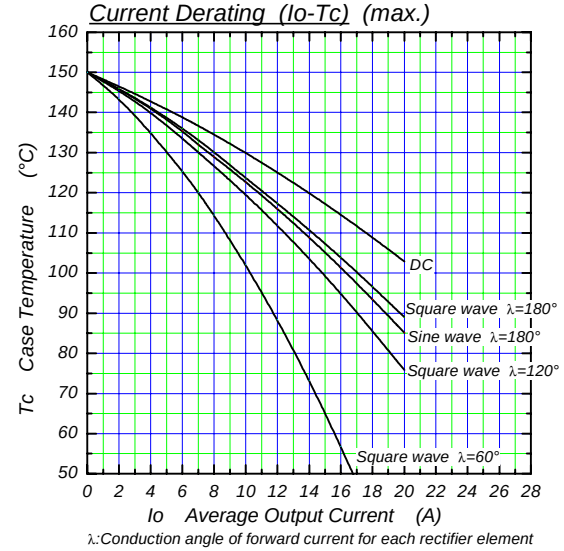
Forward Power Dissipation (max.)



Reverse Power Dissipation (max.)

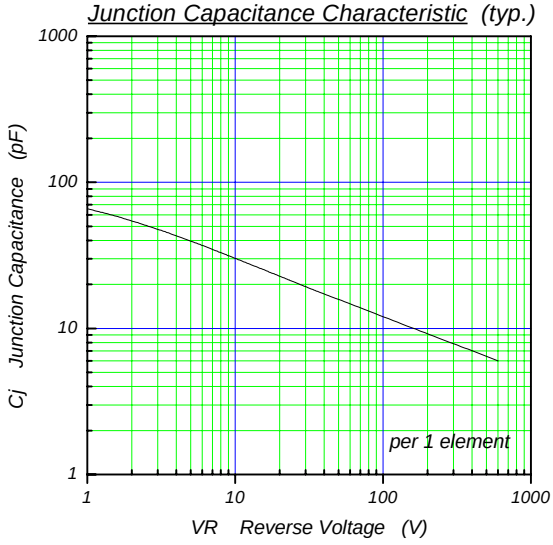


Current Derating (Io-Tc) (max.)



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

Junction Capacitance Characteristic (typ.)



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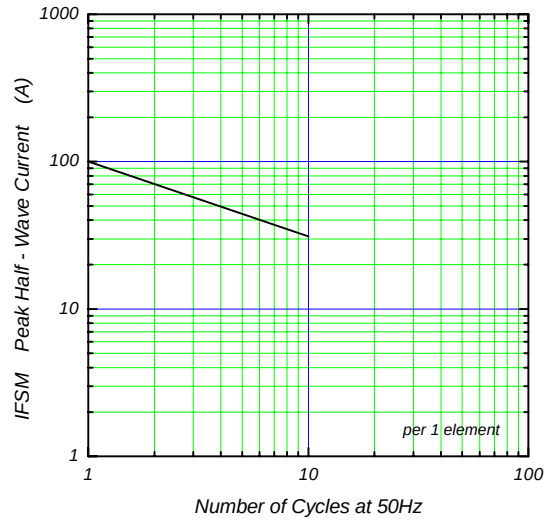
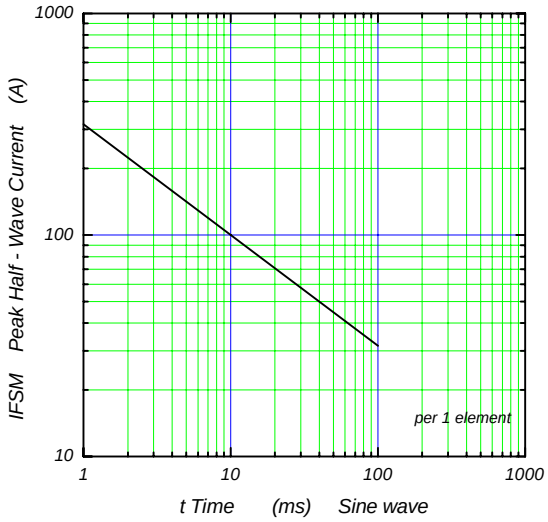
Surge Capability (max.)



Surge Current Ratings (max.)



Transient Thermal Impedance (max.)