

FDRW12S120J(1200V, 12A)

FUJI Diode

Soft Recovery FRD Series

■ Maximum Rating and Characteristics

● Maximum Ratings (at $T_a=25^\circ\text{C}$ unless otherwise specified.)

Item	Symbol	Conditions	Ratings	Units
Repetitive peak reverse voltage	V_{RRM}	–	1200	V
Average forward current	I_{FAV}	50Hz Square wave duty =1/2 $T_c = 97^\circ\text{C}$	12	A
Non-repetitive forward surge current	I_{FSM}	Sine wave, 10ms 1shot	100	A
Operating junction temperature	T_j	–	+150	$^\circ\text{C}$
Storage temperature	T_{stg}	–	-40~+150	$^\circ\text{C}$

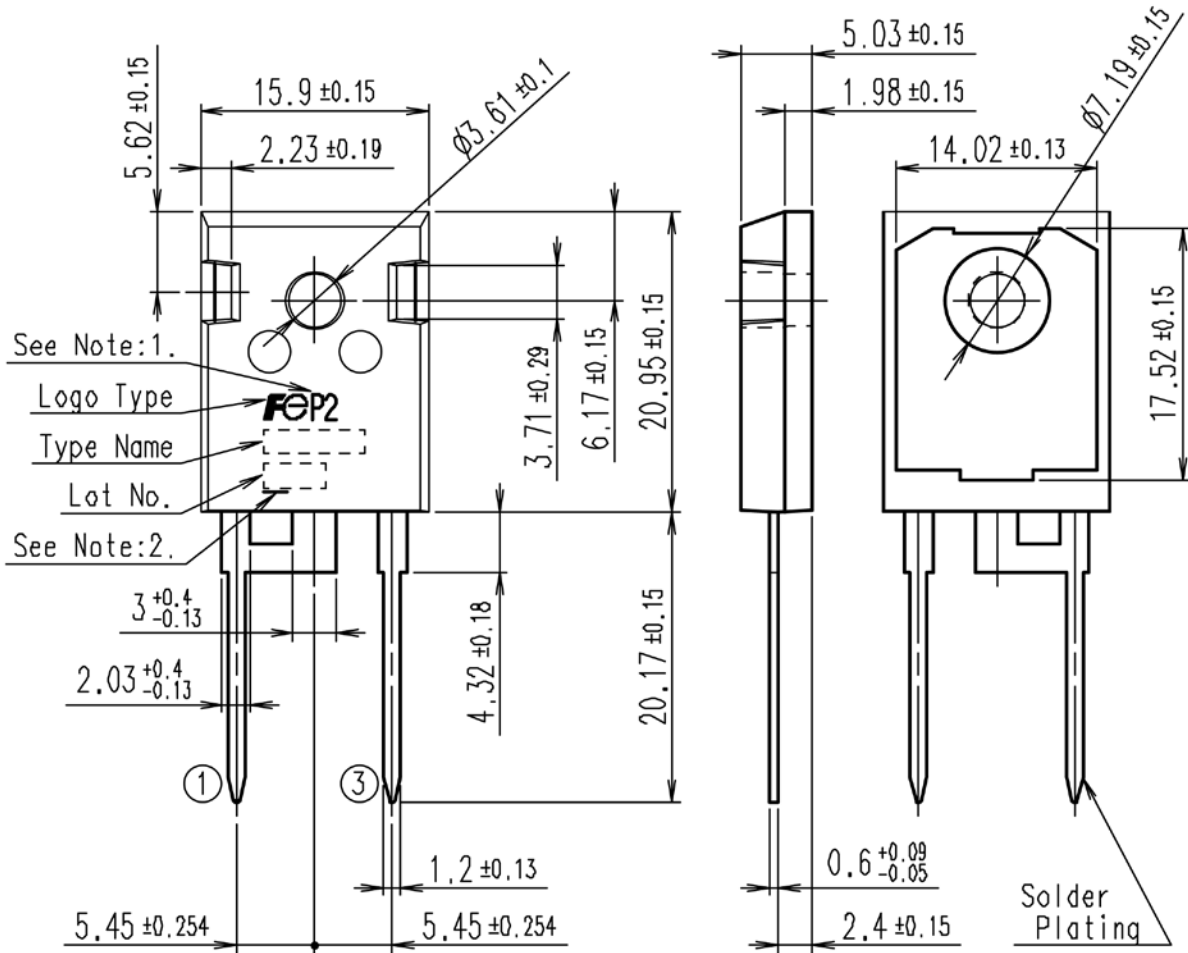
● Electrical Characteristics (at $T_a=25^\circ\text{C}$ unless otherwise specified.)

Item	Symbol	Conditions	Maximum	Units
Forward voltage	V_F	$I_F = 12\text{A}$	2.8	V
Reverse current	I_R	$V_R = V_{RRM}$	250	μA
Reverse recovery time	t_{rr}	$V_R=30\text{V}, I_F = 1.2\text{A}$ $-di/dt=200\text{A}/\mu\text{s}$	0.042	μs
Thermal resistance	$R_{th(j-c)}$	Junction to case	1.6	$^\circ\text{C}/\text{W}$

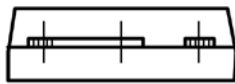
● Mechanical Characteristics

Item	Conditions	Maximum	Units
Mounting torque	Recommended torque	0.4~0.6	N·m
Approximate mass	–	4.9	g

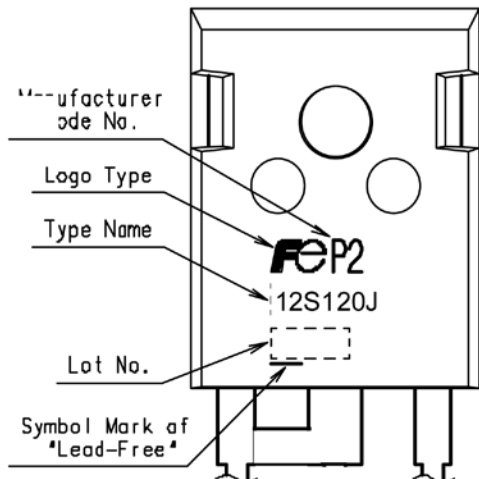
■ Outline Drawings, mm
TO-247



DIMENSIONS ARE IN MILLIMETERS.



MARKING

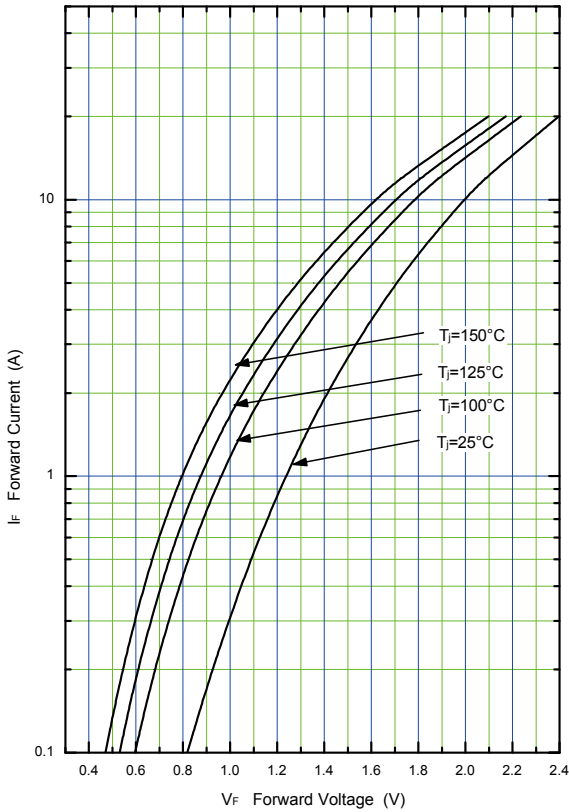


CONNECTION

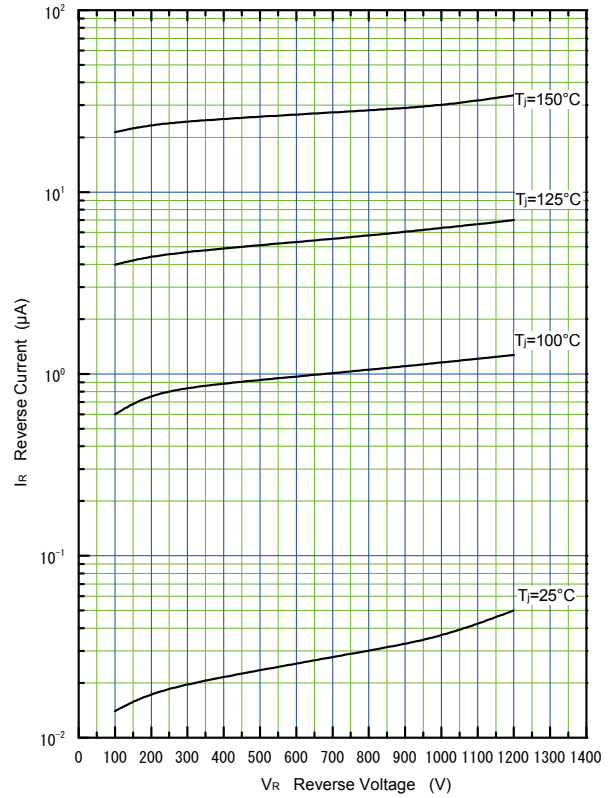
- ① CATHODE
- ③ ANODE

■ Characteristics (Representative)

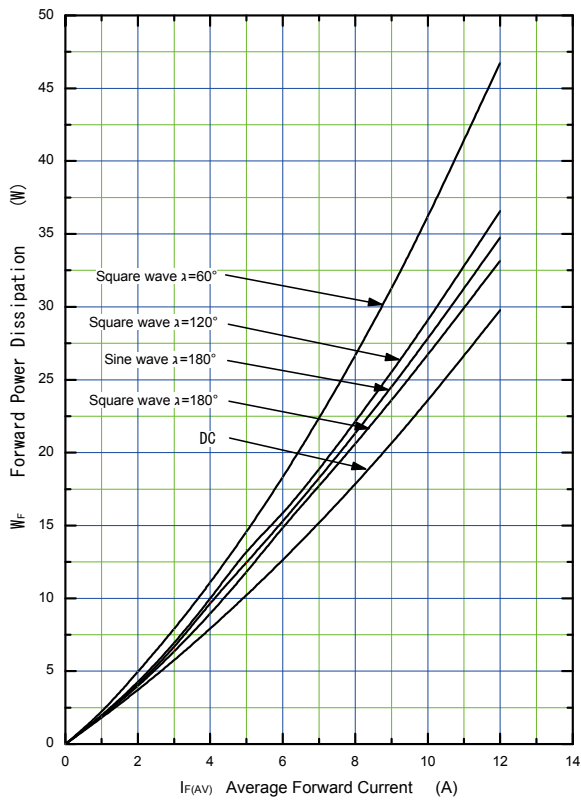
Forward Characteristic (typ.)



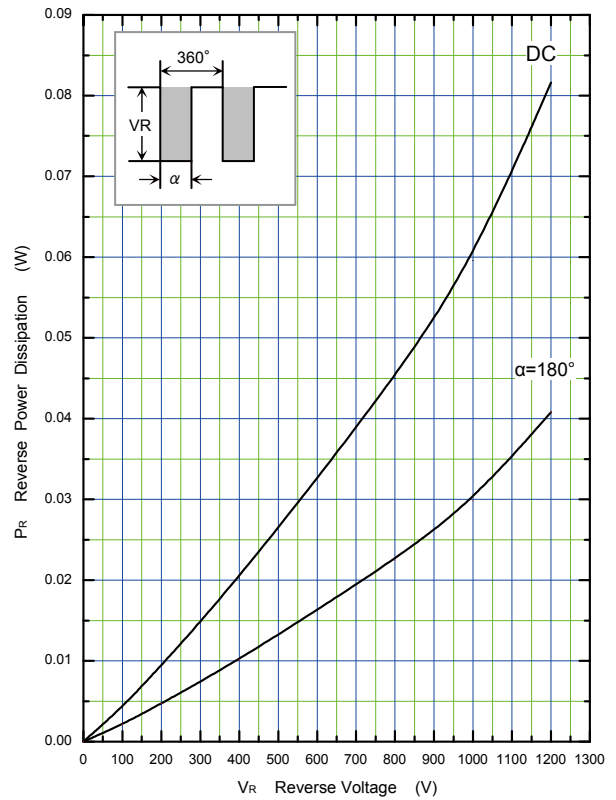
Reverse Characteristic (typ.)

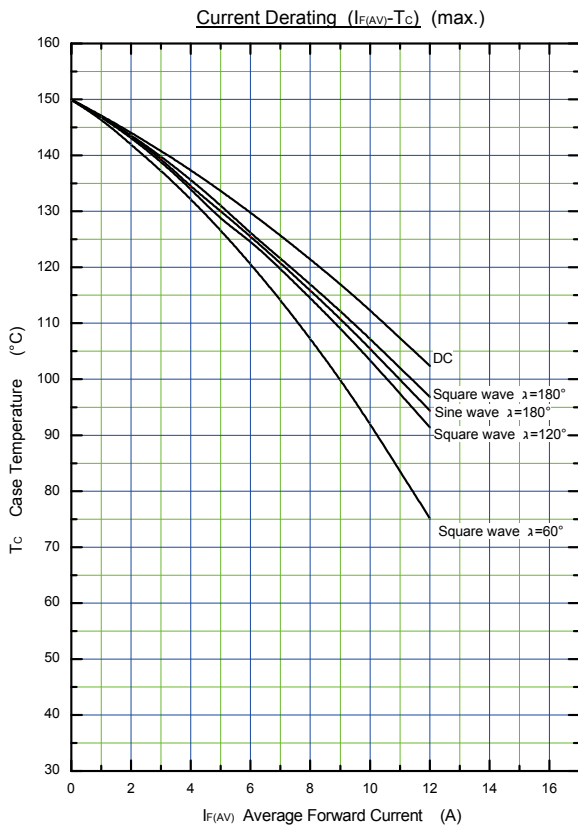


Forward Power Dissipation (max.)

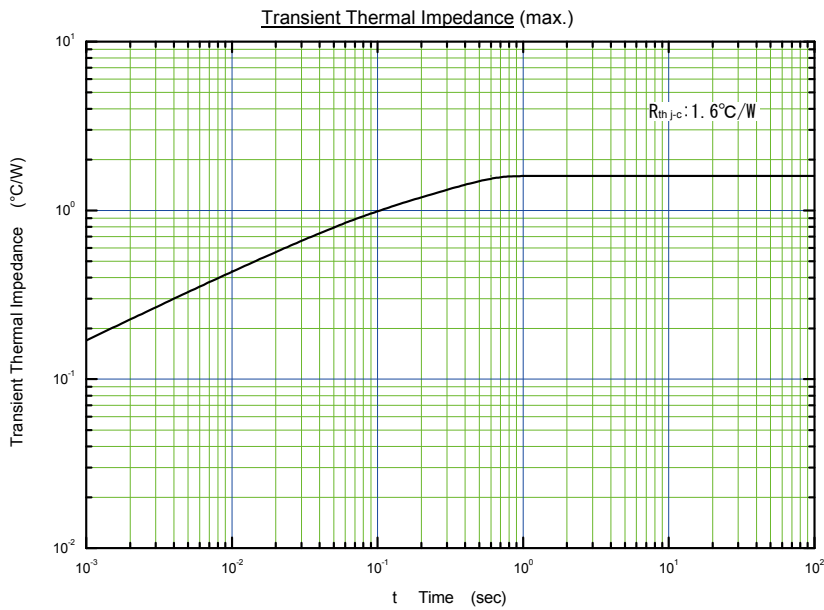
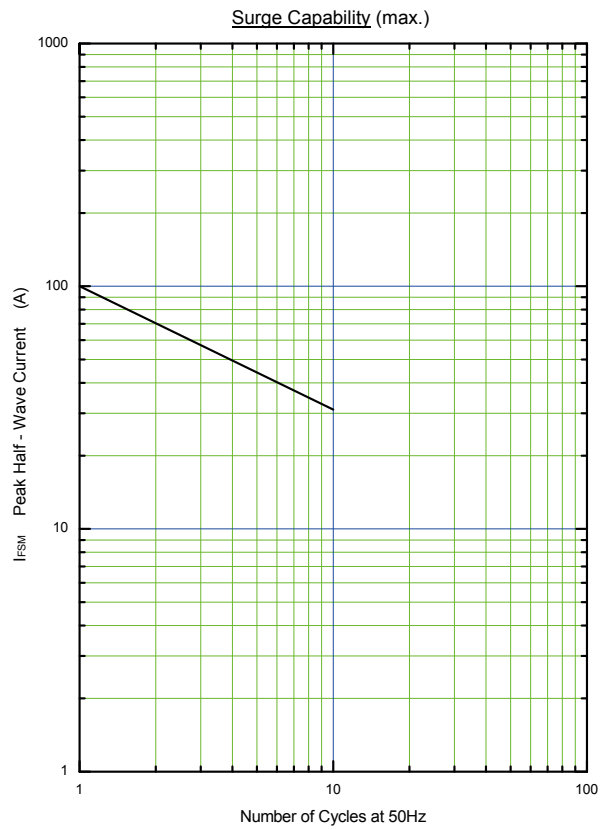


Reverse Power Dissipation (max.)





λ : Conduction angle of forward current for each rectifier element
 $I_{F(AV)}$: Forward current of center-tap full wave connection



WARNING

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 - Electrical home appliances
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 - Safety devices
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