

# DF10LC30

## Fast Recovery Diodes

300V, 10A

### Feature

- SMD
- High Recovery Speed
- Pb free terminal
- RoHS:Yes

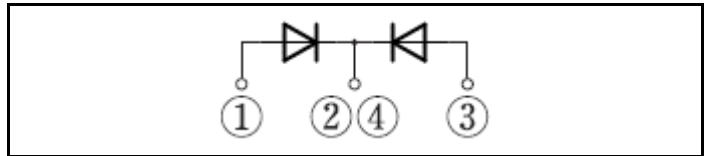
### OUTLINE

Package (House Name): STO-220

Package (JEITA Code): SC-83 similar



### Equivalent circuit



### Absolute Maximum Ratings (unless otherwise specified : Tc=25°C)

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	T <sub>stg</sub>		-55 to 150	°C
Junction temperature	T <sub>j</sub>		150	°C
Repetitive peak reverse voltage	V <sub>RRM</sub>		300	V
Average forward current	I <sub>F(AV)</sub>	50Hz sine wave, Resistance load, Rating for each diode I <sub>F(AV)</sub> /2, T <sub>c</sub> =124°C	10	A
Surge forward current	I <sub>FSM</sub>	50Hz sine wave, Non-repetitive 1 cycle, Peak value, T <sub>j</sub> =25°C	80	A

\* :See the original Specifications

### Electrical Characteristics (unless otherwise specified : Tc=25°C)

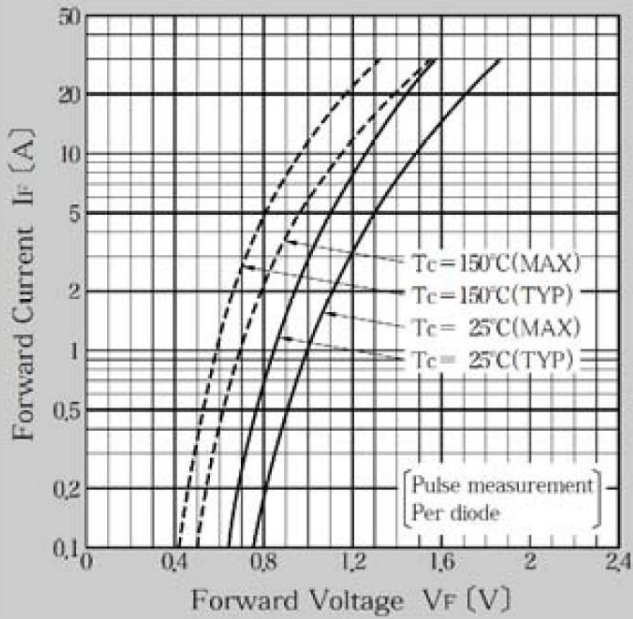
Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =5A, Pulse measurement, Per diode			1.3	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =300V, Pulse measurement, Per diode			25	μA
Reverse recovery time	t <sub>rr</sub>	I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, 0.25I <sub>R</sub> , Per Diode			30	ns
Total capacitance	C <sub>t</sub>	f=1MHz, V <sub>R</sub> =10V, Per Diode		50		pF
Thermal resistance	R <sub>th(j-c)</sub>	Junction to case			2	°C/W

\* :See the original Specifications

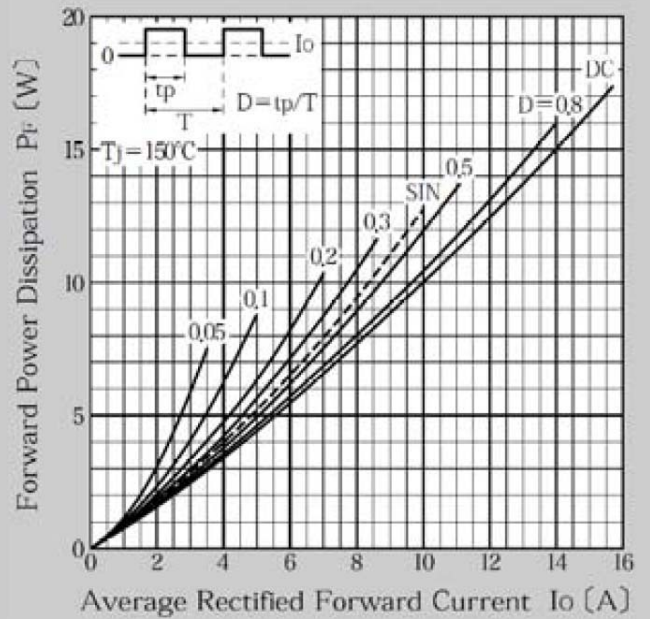


# CHARACTERISTIC DIAGRAMS

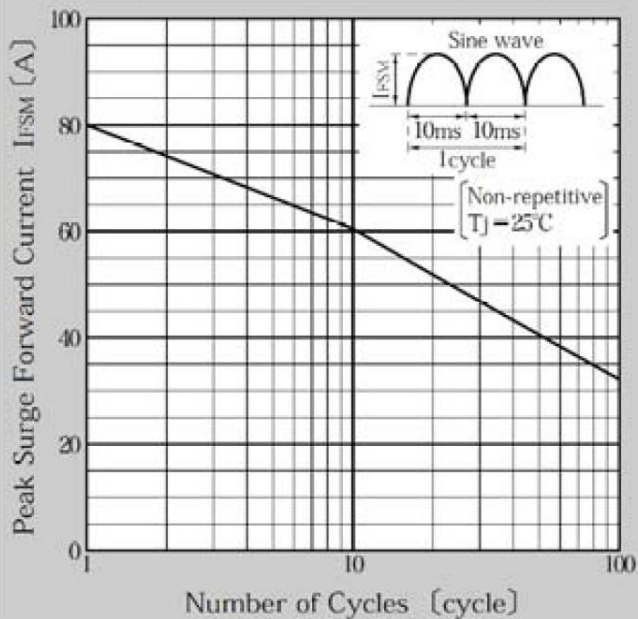
### Forward Voltage



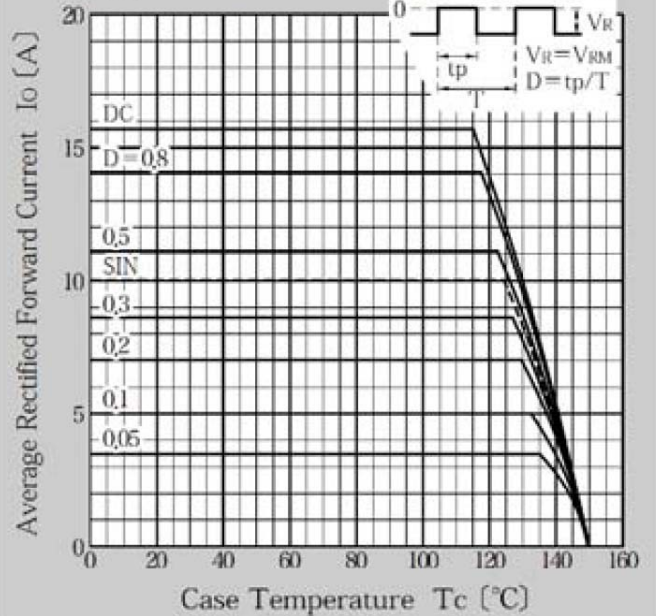
### Forward Power Dissipation



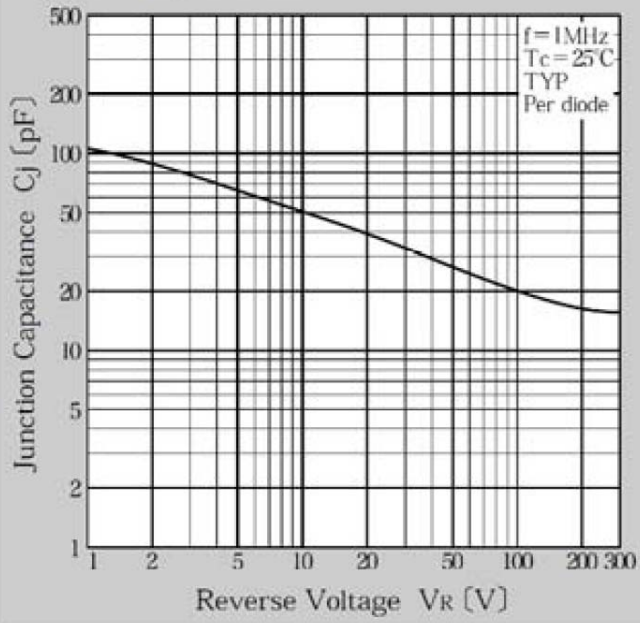
### Peak Surge Forward Current Capability



### Derating Curve $T_c$ - $I_o$

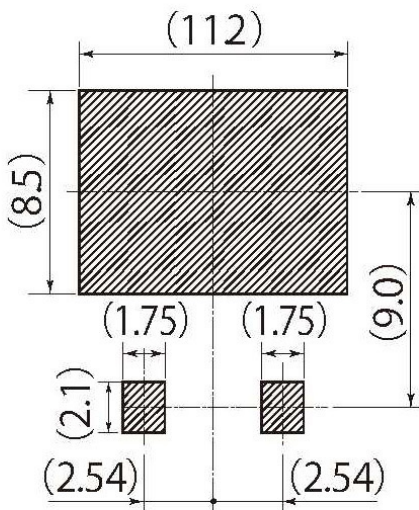
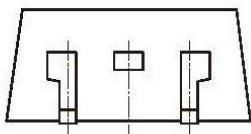
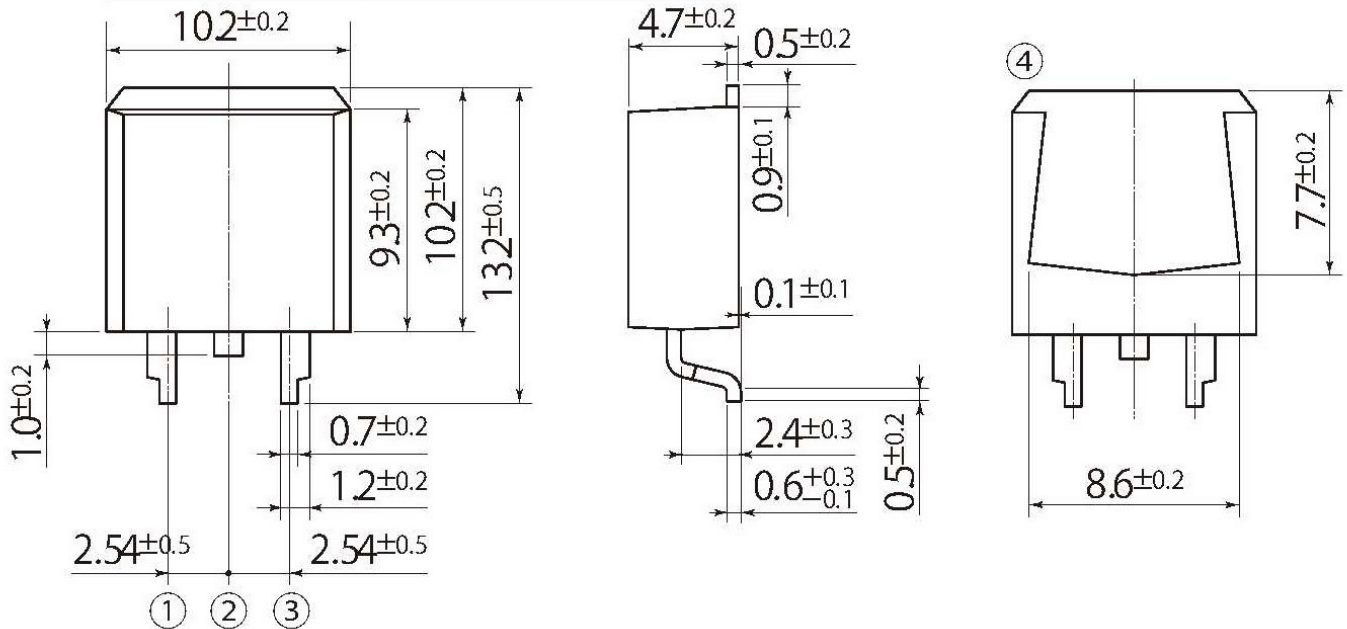


### Junction Capacitance



H1

JEDEC Code	-
JEITA Code	SC-83 similar
House Name	STO-220



Referential Soldering Pad

• Optimize soldering pad to the board design and soldering condition.

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