

# D25FD60V

## General Rectifying Diodes

600V, 25A

### Feature

- SMD
- Based on AEC-Q101
- Pb free terminal
- RoHS:Yes

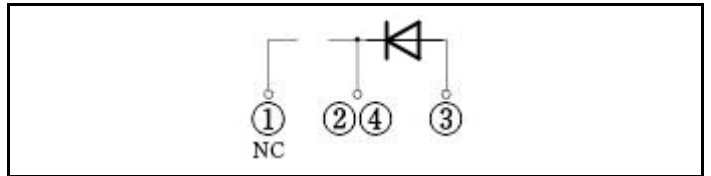
### OUTLINE

Package (House Name): FD

Package (JEITA Code): SC-83 similar



### Equivalent circuit



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

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	T <sub>stg</sub>		-55 to 150	°C
Junction temperature	T <sub>j</sub>		-55 to 150	°C
Repetitive peak reverse voltage	V <sub>RRM</sub>		600	V
Average forward current	I <sub>F(AV)</sub>	50Hz sine wave, Resistance load, With heatsink, T <sub>c</sub> =113°C	25	A
Surge forward current	I <sub>FSM</sub>	50Hz sine wave, Non-repetitive 1 cycle peak value, T <sub>j</sub> =25°C	450	A
Surge forward current	I <sub>FSM1</sub>	t <sub>p</sub> =1ms, sine wave, Non-repetitive, peak value, T <sub>j</sub> =25°C	1423	A
Current squared time	I <sup>2</sup> t	1ms ≤ t <sub>p</sub> < 10ms, T <sub>j</sub> =25°C	1013	A <sup>2</sup> s

\* : See the original Specifications

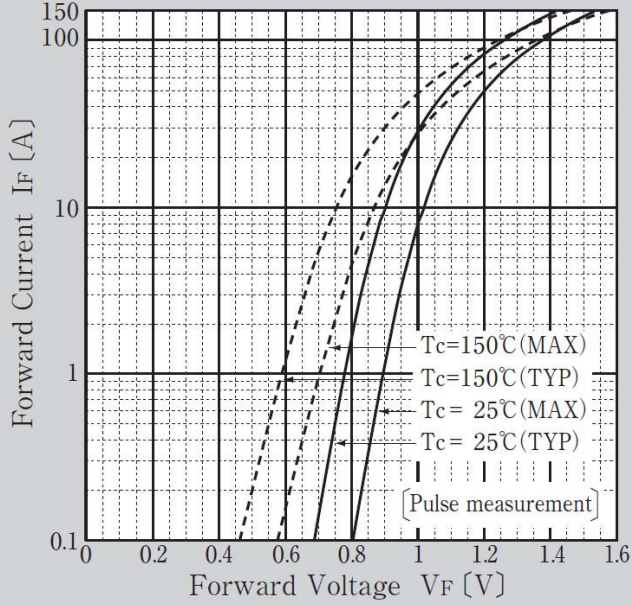
**Electrical Characteristics** (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	$V_F$	$I_F=25A$ , Pulse measurement			1.1	V
Reverse current	$I_R$	$V_R=600V$ , Pulse measurement			10	$\mu A$
Thermal resistance	$R_{th(j-c)}$	Junction to case, with heatsink			1.3	$^{\circ}C/W$
Thermal resistance	$R_{th(j-a)}$	Junction to ambient, On glass-epoxy substrate ※			65	$^{\circ}C/W$

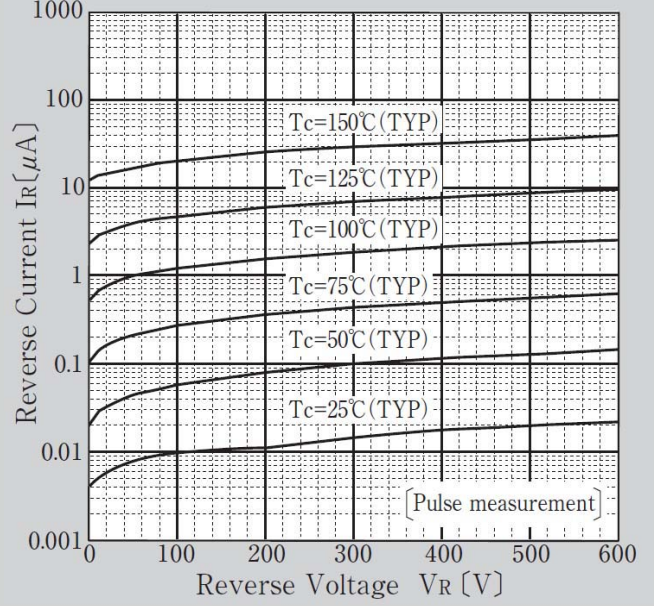
※ : See the original Specifications

# CHARACTERISTIC DIAGRAMS

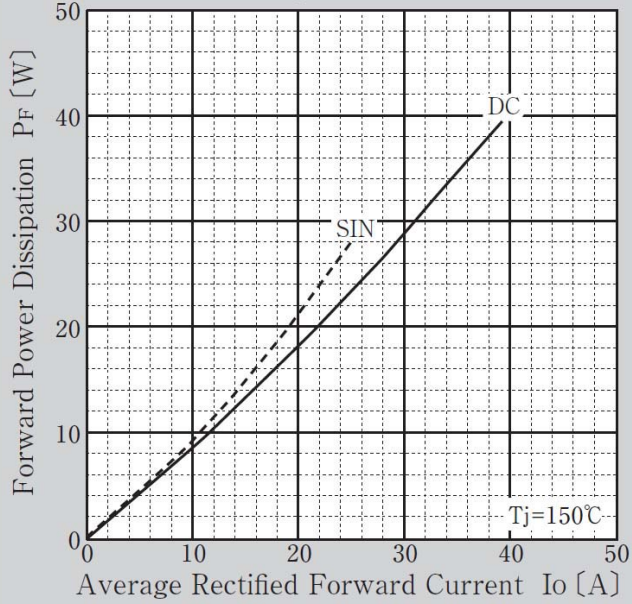
### Forward Voltage



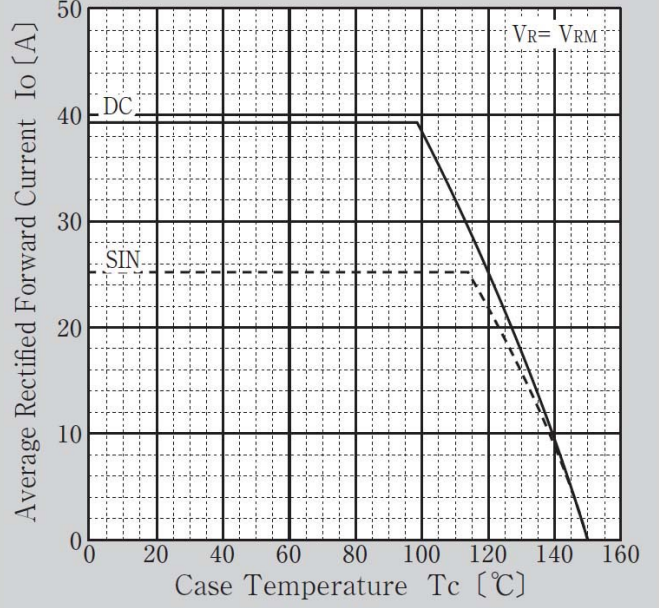
### Reverse Current



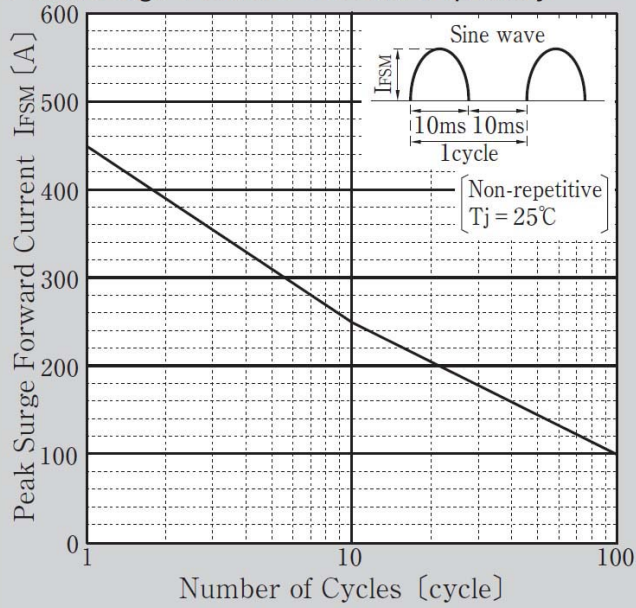
### Forward Power Dissipation



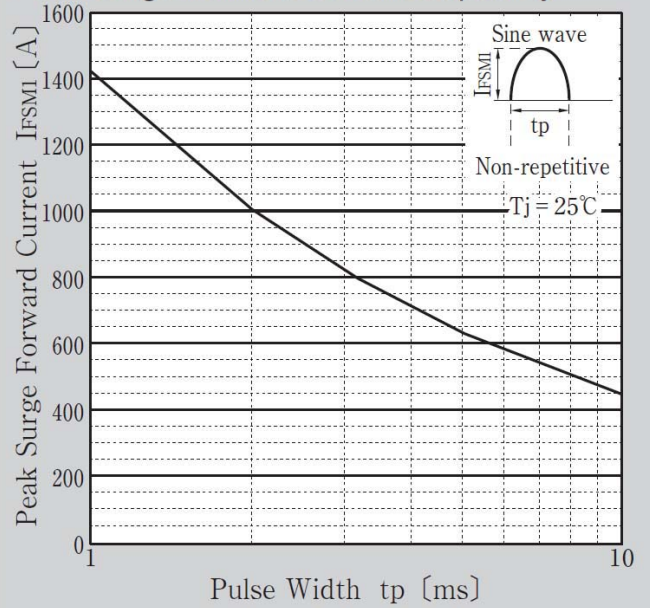
### Derating Curve



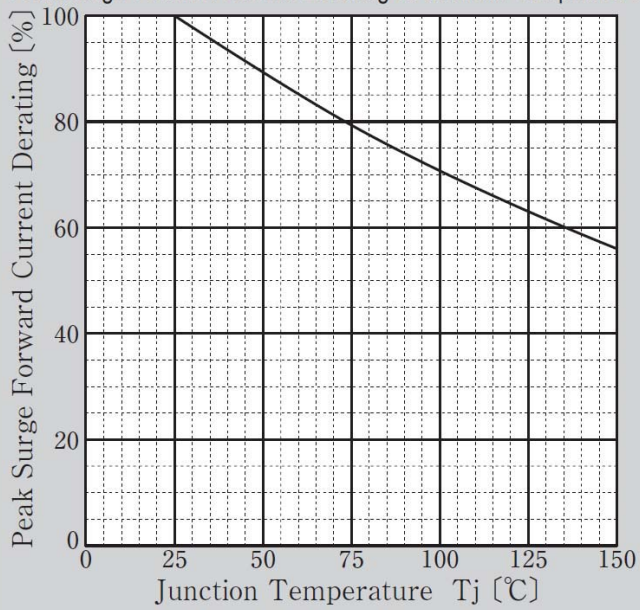
Peak Surge Forward Current Capability



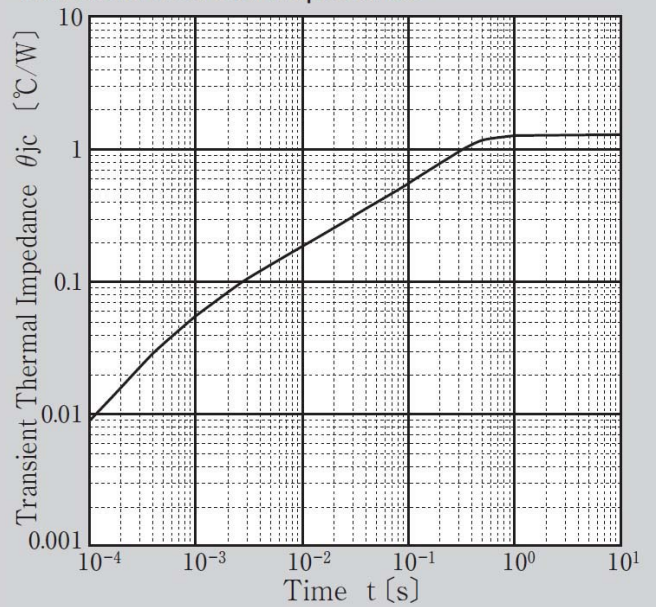
Peak Surge Forward Current Capability



Peak Surge Forward Current Derating vs Junction Temperature



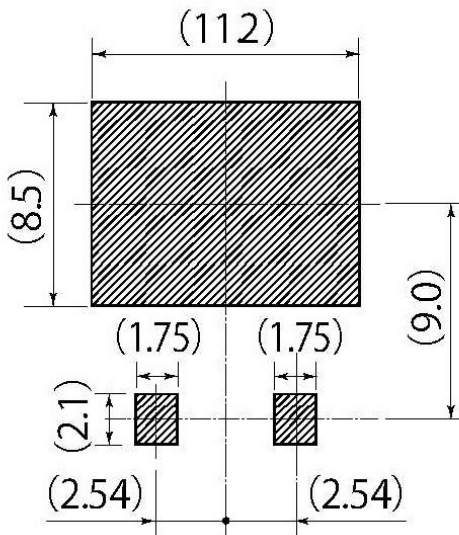
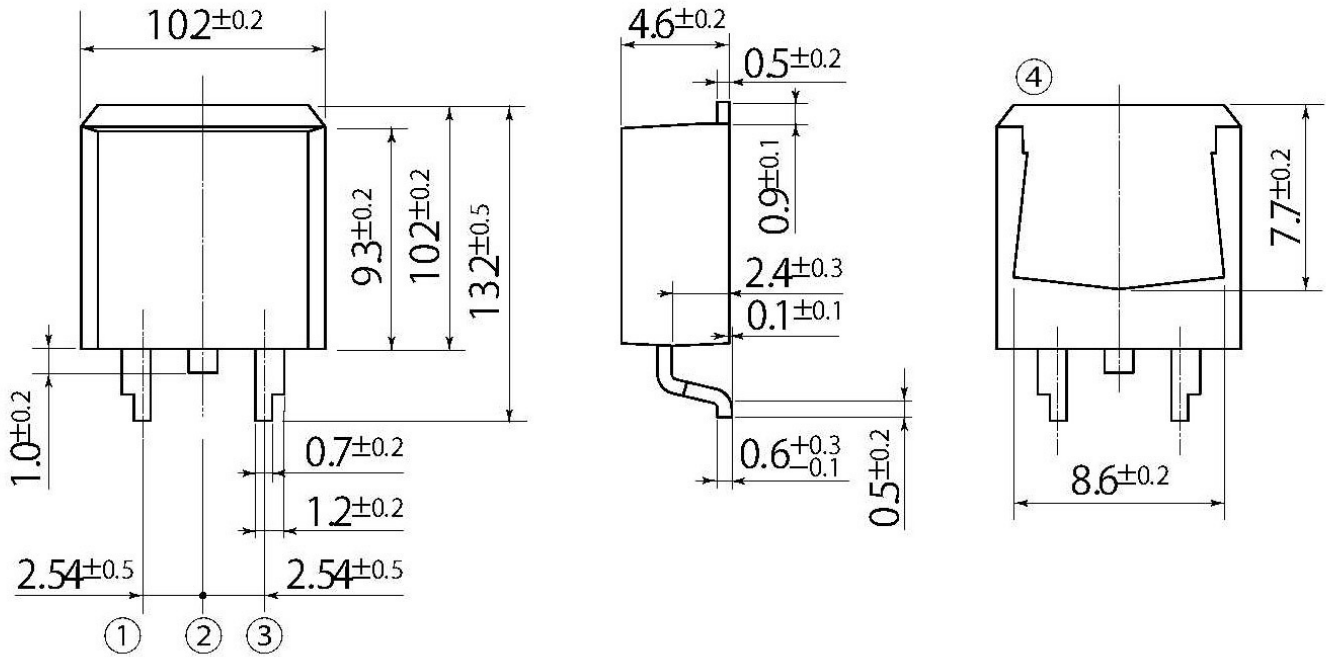
Transient Thermal Impedance





H2

JEDEC Code	—
JEITA Code	SC-83 similar
House Name	FD



Referential Soldering Pad

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

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