

# D3FK60

## Fast Recovery Diodes

600V, 2.1A

### Feature

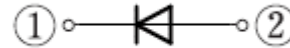
- Small SMD
- High Voltage
- Low Noise
- Available for automotive use
- Pb free terminal
- RoHS:Yes

### OUTLINE

Package (House Name): 2F



### 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, Tl=93°C	2.1	A
Average forward current	I <sub>F(AV)</sub>	50Hz sine wave, Resistance load, On alumina substrate, Ta=25°C	1.5	A
Average forward current	I <sub>F(AV)</sub>	50Hz sine wave, Resistance load, On glass-epoxy substrate, Ta=25°C	1.1	A
Surge forward current	I <sub>FSM</sub>	50Hz sine wave, Non-repetitive 1 cycle, Peak value, Tj=25°C	120	A
Current squared time	I <sup>2</sup> t	1ms ≤ tp < 10ms, Tj=25°C	72	A <sup>2</sup> s

※ : See the original Specifications

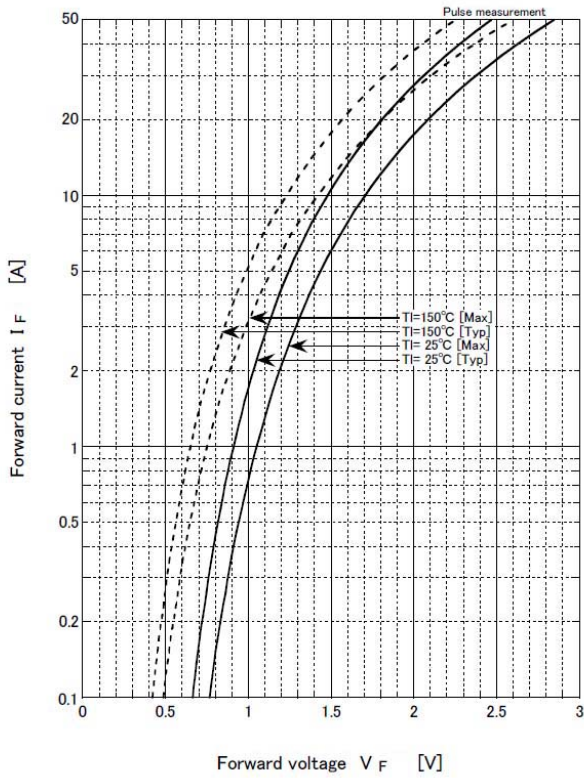
**Electrical Characteristics** (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Forward voltage	$V_F$	$I_F=2.1A$ , Pulse measurement			1.2	V
Reverse current	$I_R$	$V_R=600V$ , Pulse measurement			10	$\mu A$
Reverse recovery time	$t_{rr}$	$I_F=0.5A$ , $I_R=1.0A$ , $0.25I_R$			75	ns
Total capacitance	$C_t$	$f=1MHz$ , $V_R=10V$		37		pF
Thermal resistance	$R_{th(j-l)}$	Junction to lead			23	$^{\circ}C/W$
Thermal resistance	$R_{th(j-a)}$	Junction to ambient, On alumina substrate			80	$^{\circ}C/W$
Thermal resistance	$R_{th(j-a)}$	Junction to ambient, On glass-epoxy substrate			115	$^{\circ}C/W$

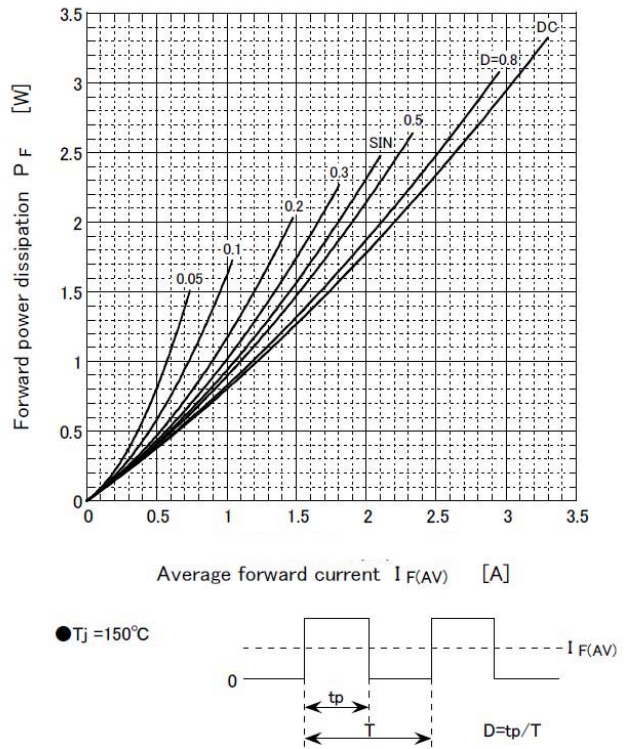
\* :See the original Specifications

# CHARACTERISTIC DIAGRAMS

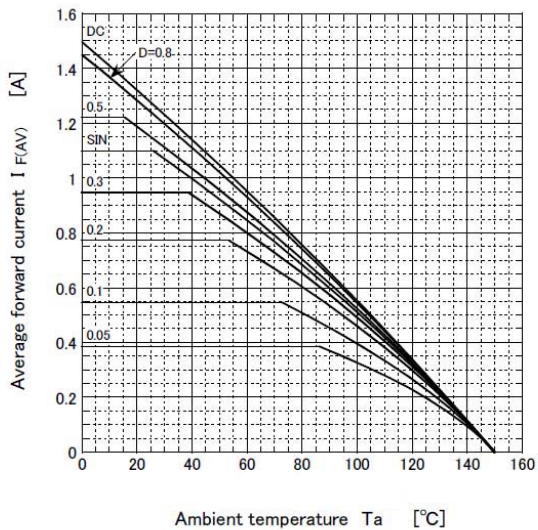
Forward voltage



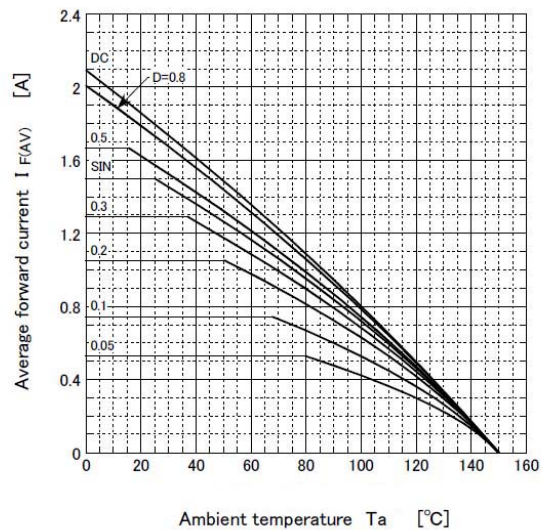
Forward power dissipation



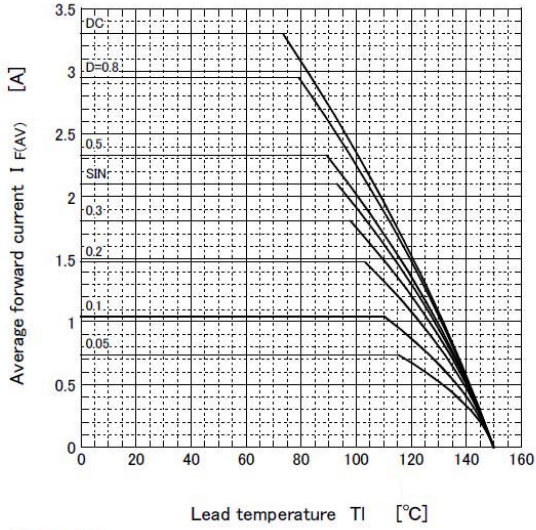
Derating curve



Derating curve

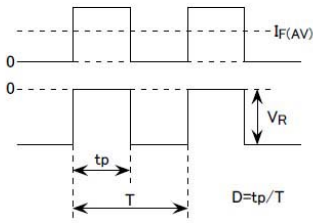


Derating curve

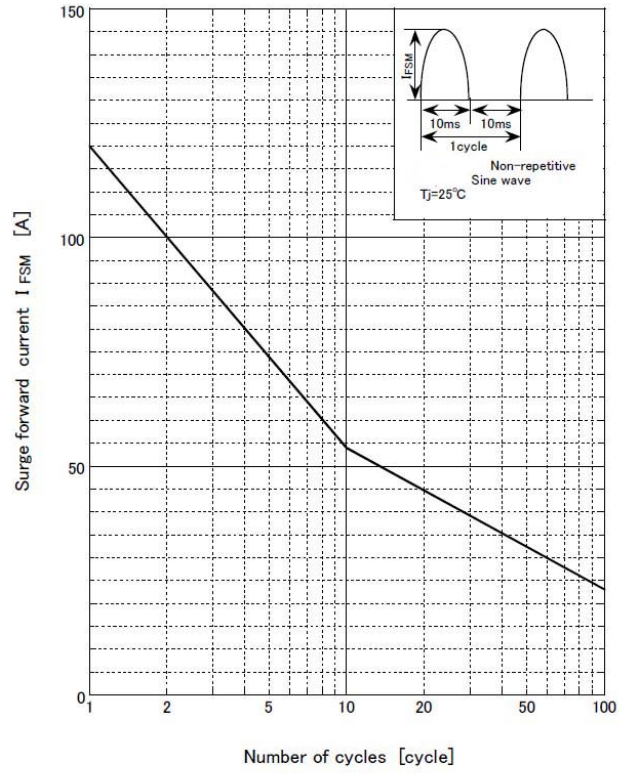


●  $V_R = 600V$

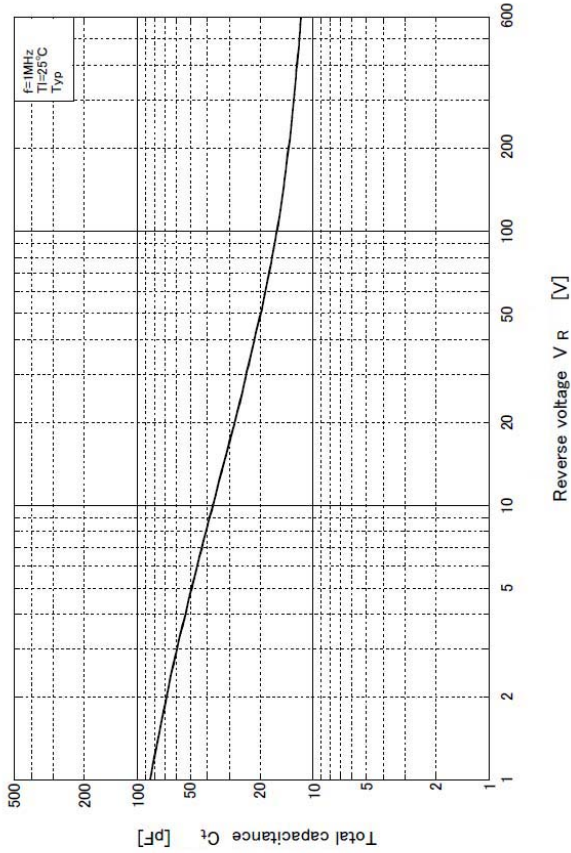
R-load  
Free in air



Surge forward current capability



Total capacitance



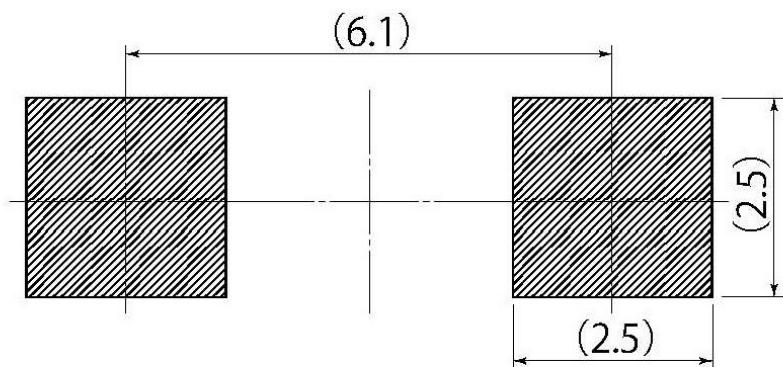
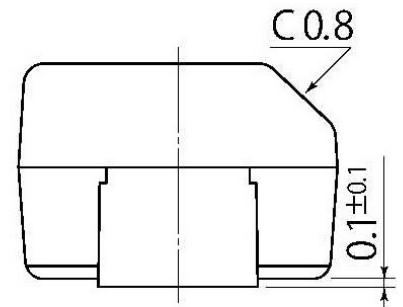
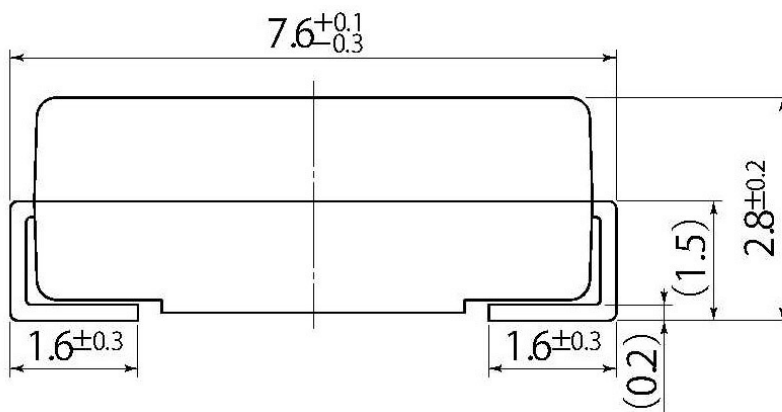
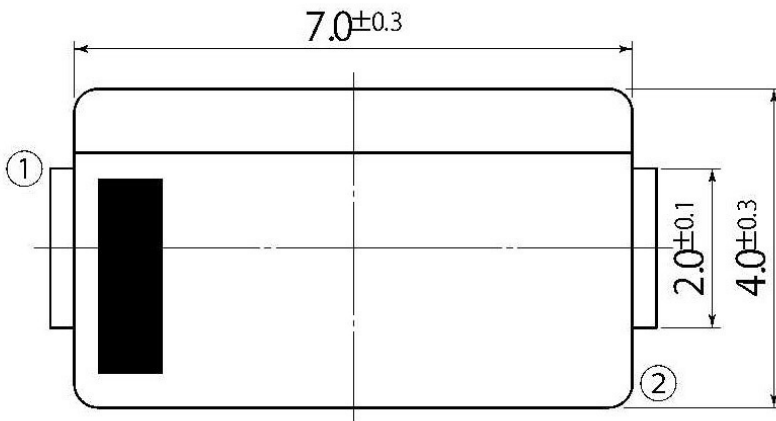
# Outline Dimensions

unit:mm

scale: 10/1

B9

JEDEC Code	—
JEITA Code	—
House Name	2F



Referential Soldering Pad

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

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