

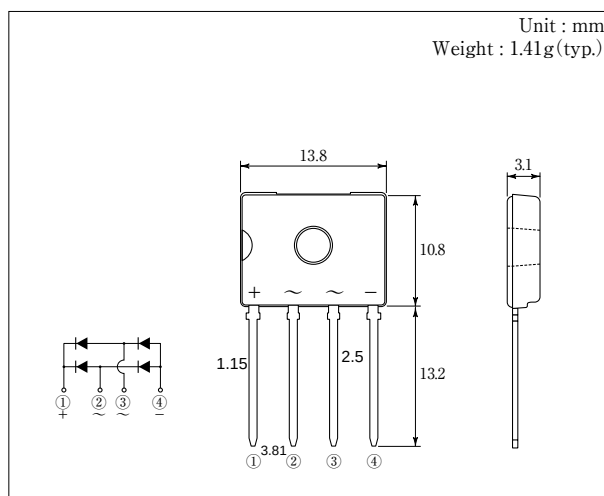
UD5KB100

 1000V 5A

Feature

- Compact-SIP
- High Voltage · Large I_{FSM}

OUTLINE



For details of outline dimensions, refer to our web site or the Semiconductor Short Form Catalog. As for the marking, refer to the specification "Marking, Terminal Connection."

RATINGS

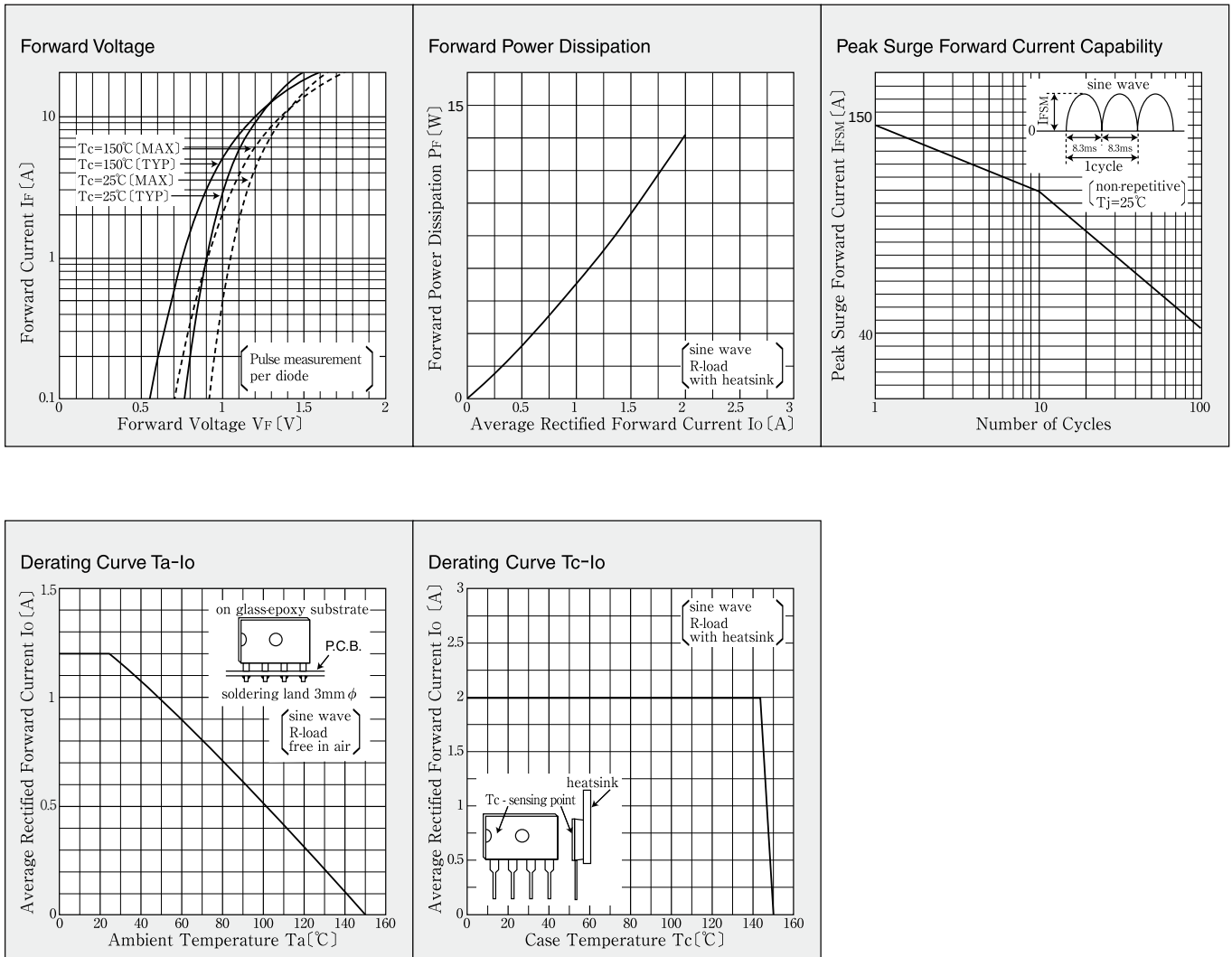
● Absolute Maximum Ratings ($T_c = 25^\circ\text{C}$ / unless otherwise specified)

Item	Symbol	Conditions	Type No.	UD5KB100	Unit
Storage Temperature	T_{stg}			- 55 ~ 150	$^\circ\text{C}$
Operation Junction Temperature	T_j			150	$^\circ\text{C}$
Maximum Reverse Voltage	V_{RM}			1000	V
Average Rectified Forward Current	I_O	60Hz sine wave, Resistance load	Without heatsink $T_a = 30^\circ\text{C}$	1.3	A
			With heatsink $T_c = 138^\circ\text{C}$	5.0	
Peak Surge Forward Current	I_{FSM}	60Hz sine wave, Non-repetitive 1cycle peak value, $T_j = 25^\circ\text{C}$		135	A
Current Squared Time	I^2t	$3\text{ms} \leq t < 8.3\text{ms}$, $T_j = 25^\circ\text{C}$, per diode		75	A^2s
Dielectric Strength	V_{dis}	Terminals to Case, AC 1 minute		2.0	kV
Mounting Torque	TOR	(Recommended torque : 0.5 N · m)		0.8	N · m

Electrical Characteristics ($T_c = 25^\circ\text{C}$ / unless otherwise specified)

Forward Voltage	V_F	$I_F = 3\text{A}$, Pulse measurement, per diode	MAX 1.05	V
Reverse Current	I_R	$V_R = 1000\text{V}$, Pulse measurement, per diode	MAX 10	μA
Thermal Resistance	θ_{jc}	Junction to case, With heatsink	MAX 1.5	$^\circ\text{C}/\text{W}$
	θ_{ja}	Junction to ambient, Without heatsink	MAX 55	
	θ_{jl}	Junction to lead, Without heatsink	MAX 15	

CHARACTERISTIC DIAGRAMS



* 50Hz sine wave is used for measurements.

* Semiconductor products generally have characteristic variation.
Typical is a statistical average of the device's ability.