

DIODE(THREE PHASES BRIDGE TYPE)

DF200AA120/160

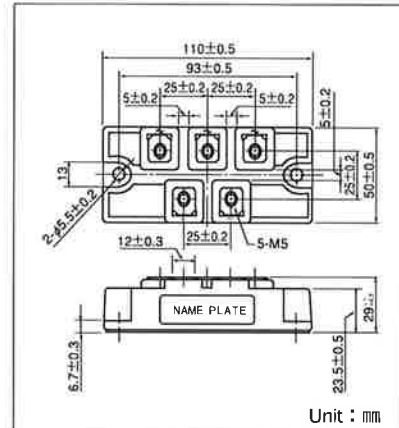
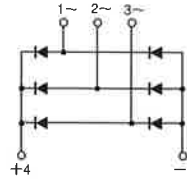
UL:E76102(M)

Power Diode Module **DF200AA** is designed for three phase full wave rectification, which has six diodes connected in a three phase bridge configuration. The mounting base of the module is electrically isolated from semiconductor elements for simple heatsink construction. Output DC current is 200Amp ($T_c=96^\circ\text{C}$) Repetitive peak reverse voltage is up to 1,600V.

- $T_{j\text{Max}}=150^\circ\text{C}$
- Isolated mounting base
- High reliability by unique glass passivation

(Applications)

AC, DC Motor Drive/AVR/Switching
-for three phase rectification



Maximum Ratings

($T_j=25^\circ\text{C}$ unless otherwise specified)

Symbol	Item	Ratings		Unit
		DF200AA120	DF200AA160	
V_{RRM}	Repetitive Peak Reverse Voltage	1200	1600	V
V_{RSM}	Non-Repetitive Peak Reverse Voltage	1300	1700	V

Symbol	Item	Conditions	Ratings	Unit	
I_D	Output Current (D.C.)	Three Phase full wave. $T_c=96^\circ\text{C}$	200	A	
I_{FSM}	Surge Forward Current	1 cycle, 50/60Hz, peak value, non-repetitive	1850/2000	A	
I^2t	I^2t	Value for one cycle of surge current	17000	A^2S	
T_j	Operating Junction Temperature		-40 to +150	$^\circ\text{C}$	
T_{stg}	Storage Temperature		-40 to +125	$^\circ\text{C}$	
V_{iso}	Isolation Breakdown Voltage (R.M.S.)	A.C. 1 minute	2500	V	
	Mounting Torque	Mounting (M5)	Recommended Value 1.5-2.5 (15-25)	2.7 (28)	N·m (kgf·cm)
		Terminal (M5)	Recommended Value 1.5-2.5 (15-25)	2.7 (28)	
	Mass	Typical Value	360	g	

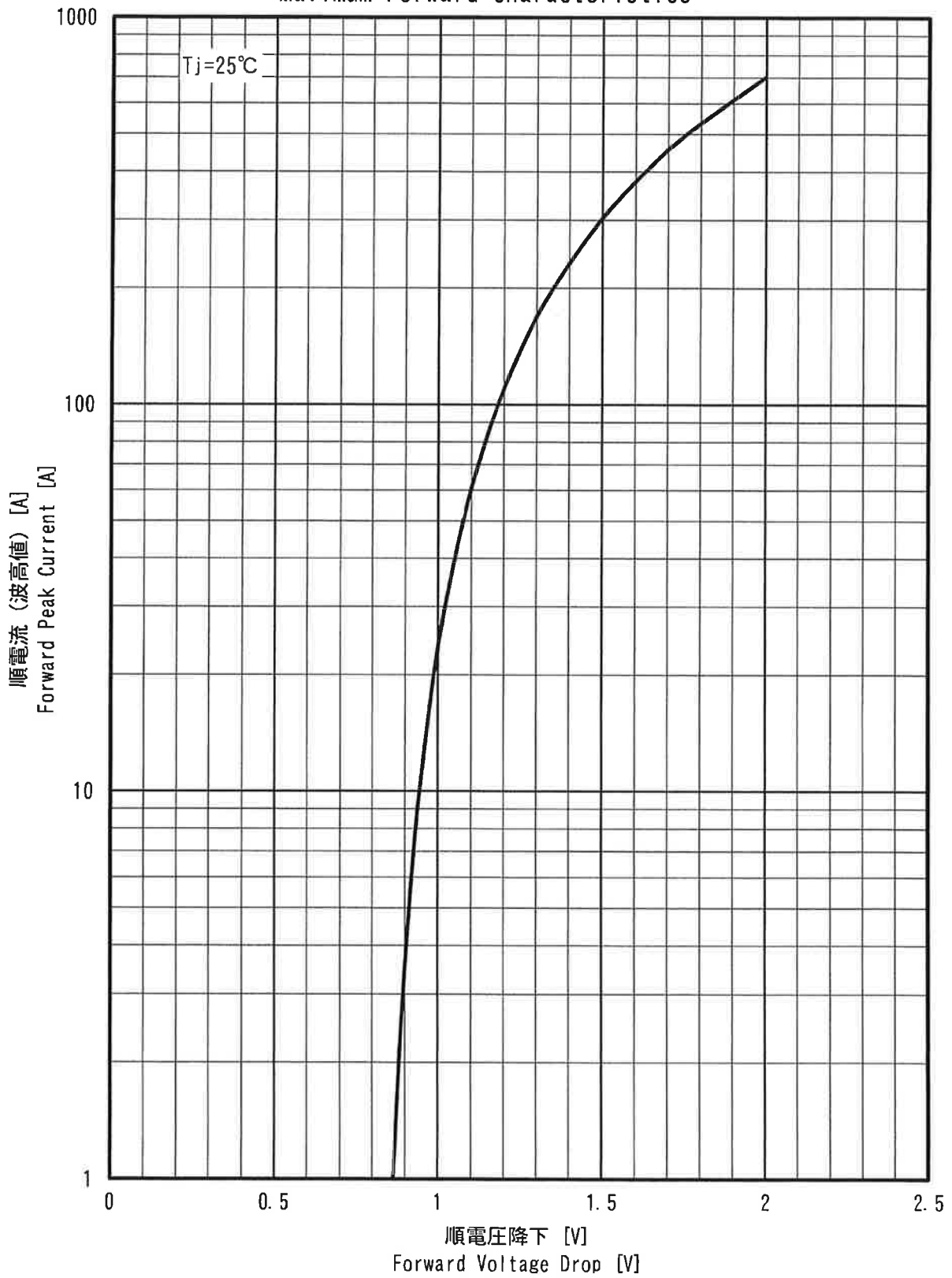
Electrical Characteristics

Symbol	Item	Conditions	Ratings	Unit
I_{RRM}	Repetitive Peak Reverse Current, max.	$T_j=150^\circ\text{C}$ at V_{RRM}	20.0	mA
V_{FM}	Forward Voltage Drop, max.	$T_j=25^\circ\text{C}$, $I_{FM}=200\text{A}$, Inst. measurement	1.35	V
$R_{th(j-c)}$	Thermal Impedance, max.	Junction to case	0.10	$^\circ\text{C}/\text{W}$

DF200AA

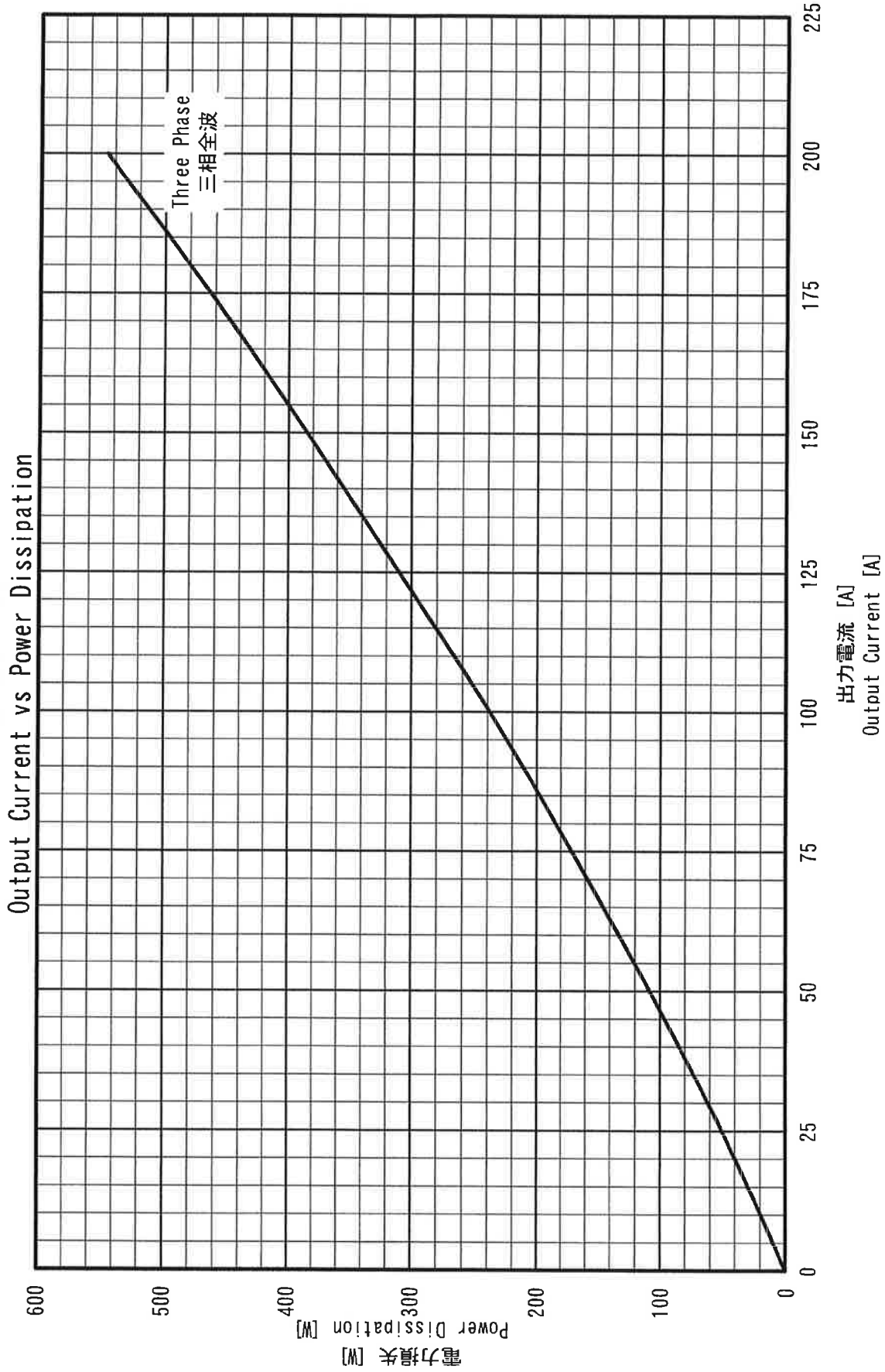
最大順特性

Maximum Forward Characteristics



DF200AA

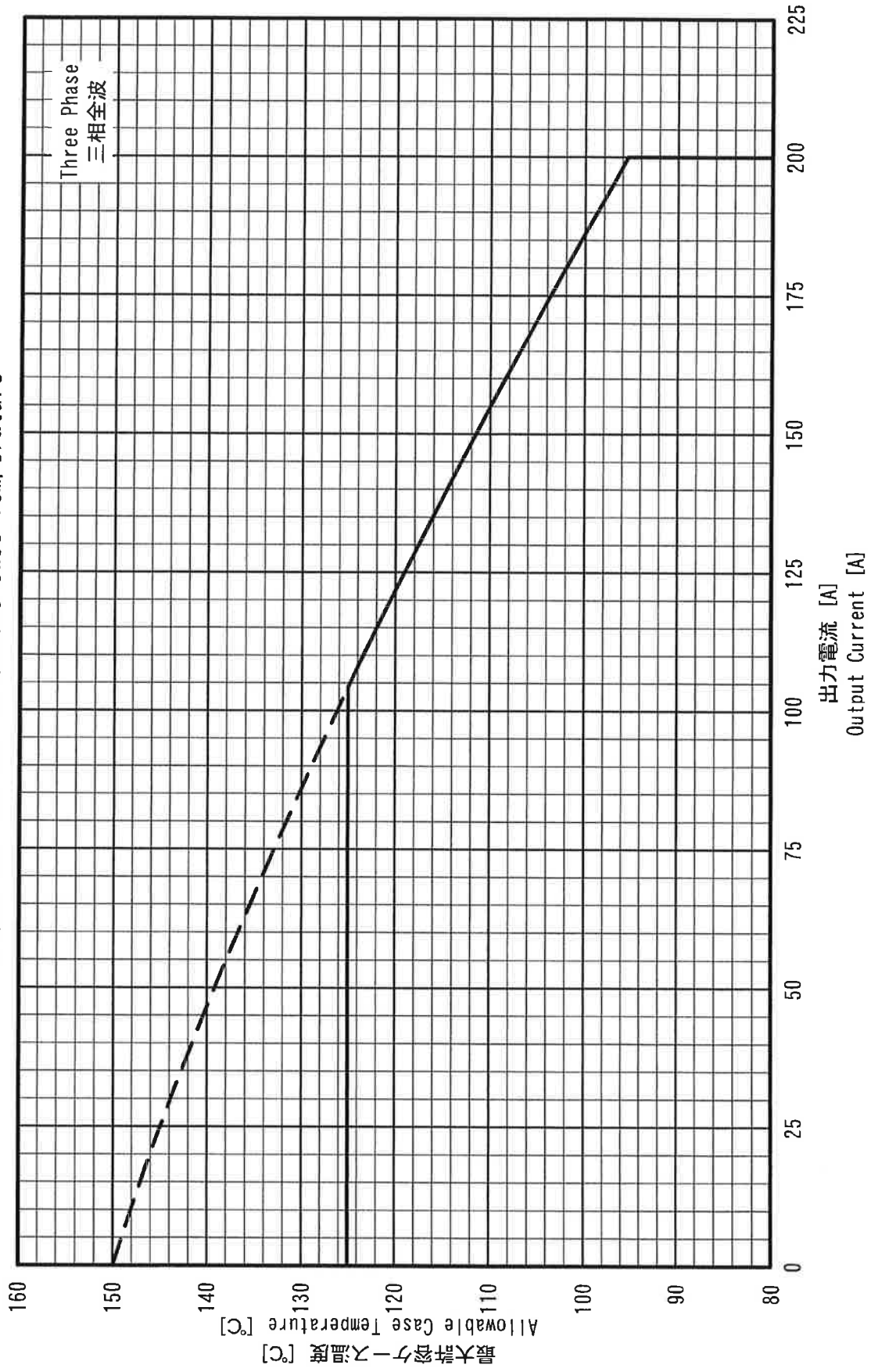
最大電力損失特性



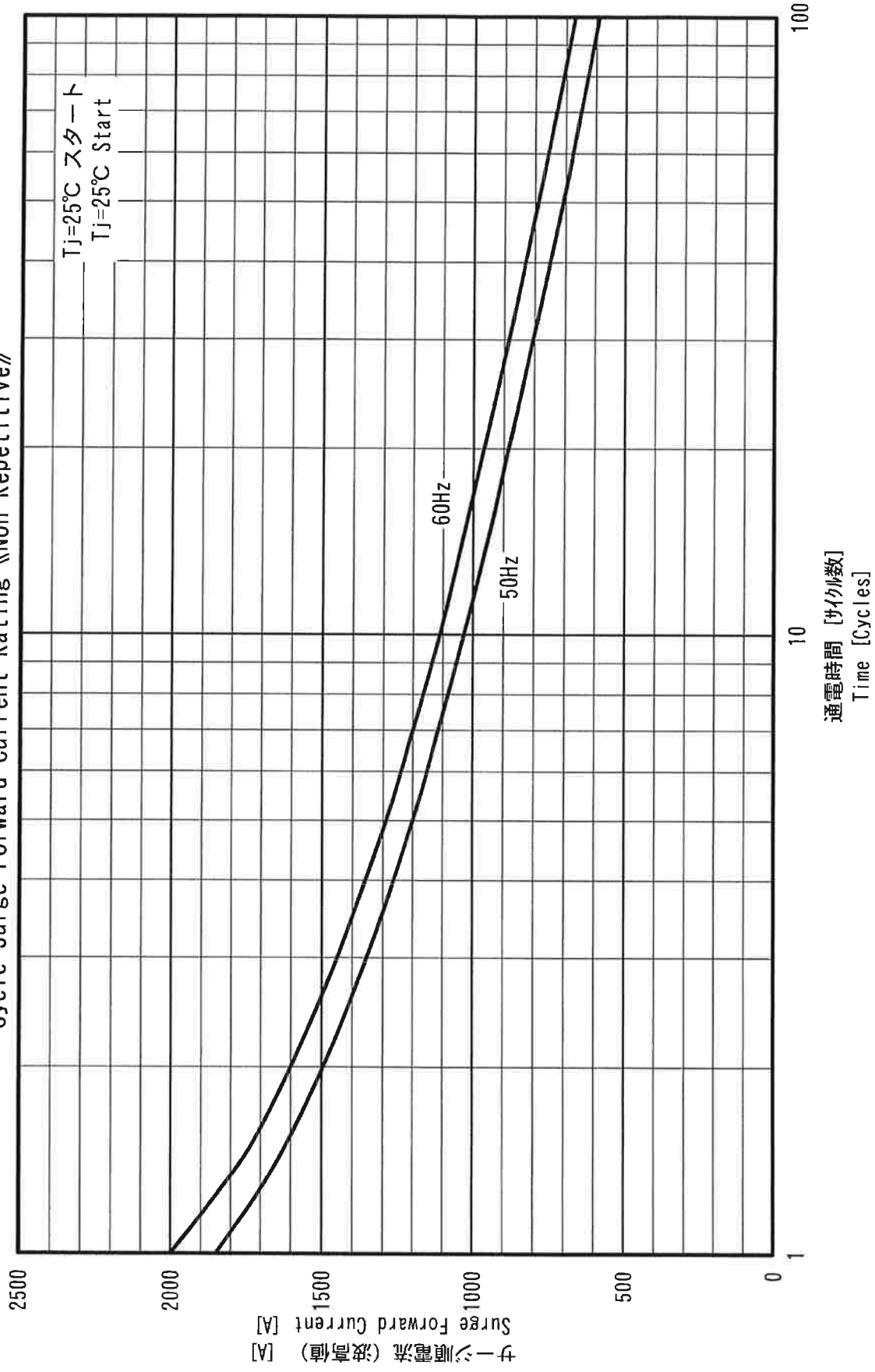
DF200AA

出力電流対最大許容ケース温度

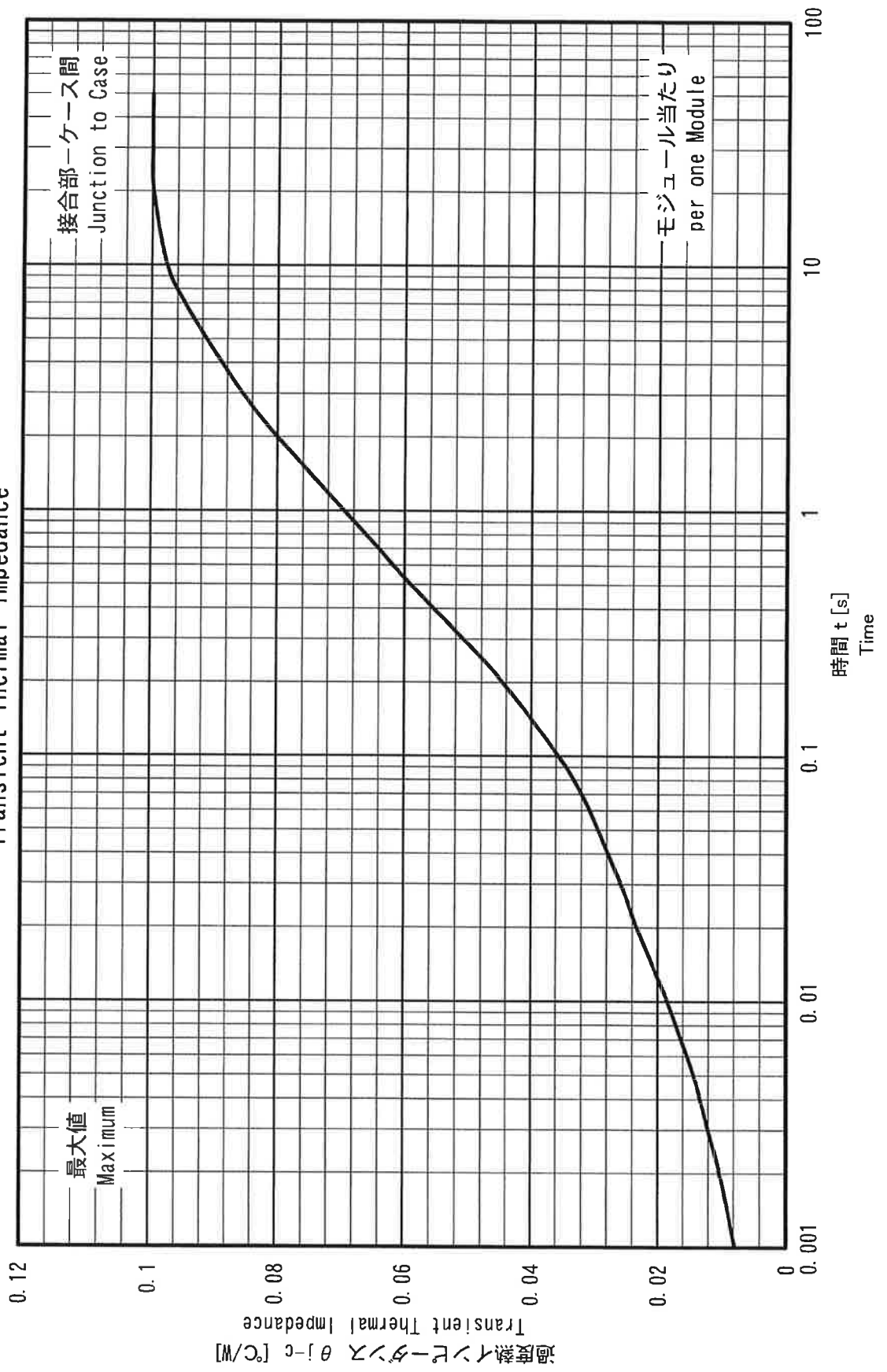
Output Current vs. Allowable Case Temperature



DF200AA
 サージ電流耐量《非くり返し》
 Cycle Surge Forward Current Rating 《Non-Repetitive》

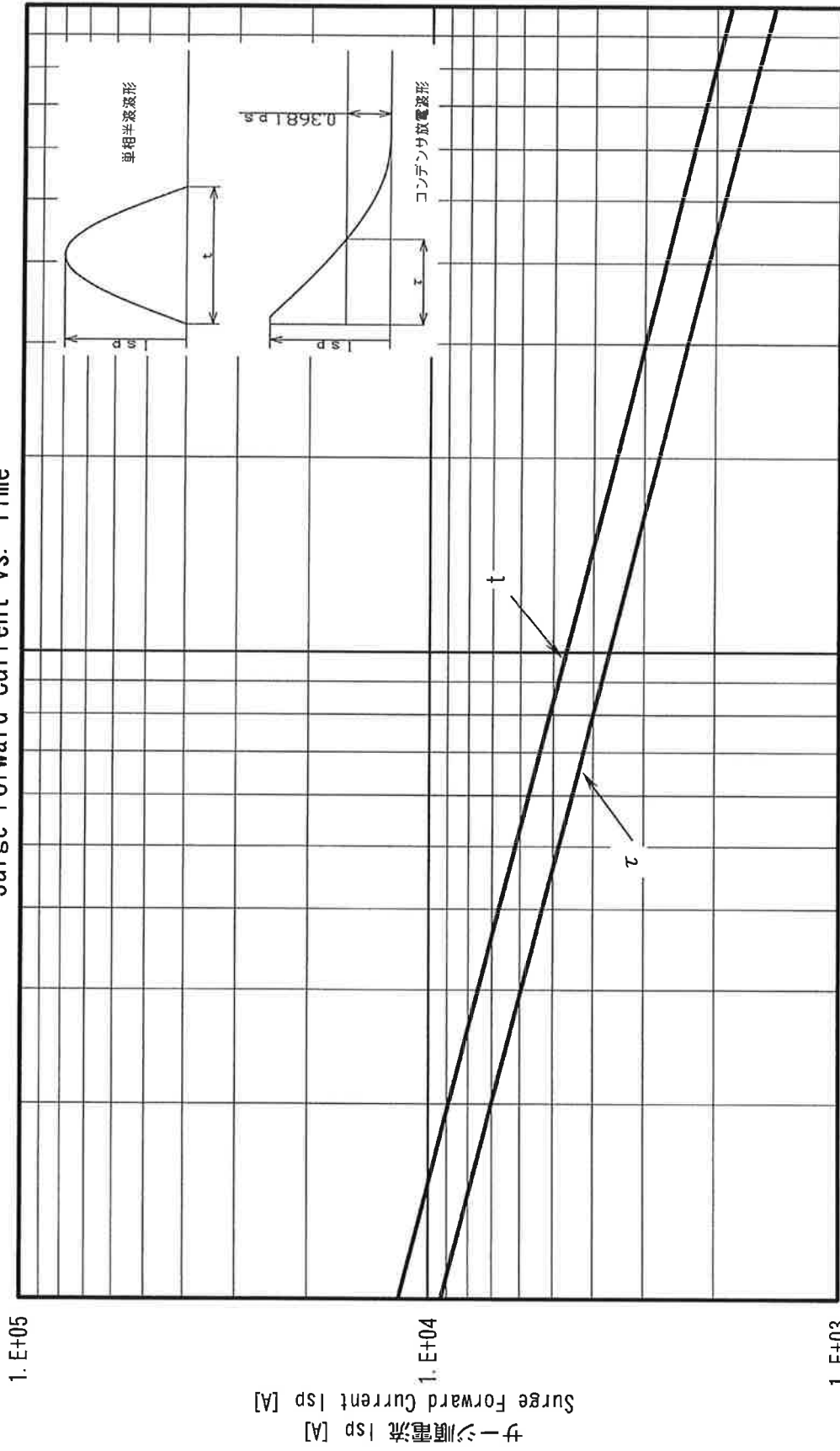


DF200AA
 過度熱インピーダンス特性
 Transient Thermal Impedance



DF200AA160
サージ順電流対時間

Surge Forward Current vs. Time



1. E+03
1. E+02

1. E+03
時間 [μ s]
Time [μ s]

1. E+04