

1.0A Avg.

40 Volts

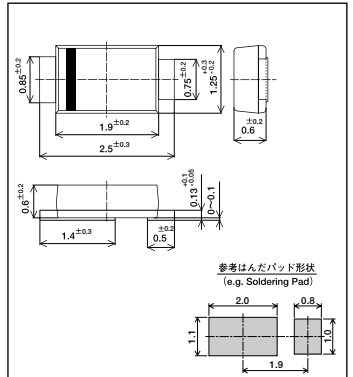
SBD

SA10QA04

■最大定格 Maximum Ratings

Item	Symbol	Conditions	Unit
くり返しピーク逆電圧 Repetitive Peak Reverse Voltage	$V_{RRM}$	40	V
直流順電流 Direct Forward Current	$I_{DC}$	直流通電 Direct Current $T_a=63^\circ\text{C}^*1$	1.41 A
平均整流電流 Average rectified Forward Current	$I_o$	方形波通電 RECT 180° Rectangular Wave 50% Duty $T_a=66^\circ\text{C}^*1, V_{RM}=20\text{V}$ $T_l=120^\circ\text{C}, V_{RM}=20\text{V}$ ( $T_l$ : Lead Temperature)	1.0 A
サージ順電流 Surge Forward Current	$I_{FSM}$	20 (50Hz正弦半波1サイクル非くり返し) Half Sine Wave, 1cycle, Non-repetitive	A
動作接合温度範囲 Operating Junction Temperature Range	$T_{jw}$	-40~+150	°C
保存温度範囲 Storage Temperature Range	$T_{stg}$	-40~+150	°C

■OUTLINE DRAWING(mm)



■APPROX. NET WEIGHT:0.004 g

■電氣的・熱的特性 Electrical/Thermal Characteristics

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
ピーク逆電流 Peak Reverse Current	$I_{RM}$	$V_{RM}=5\text{V}$ $T_a=25^\circ\text{C}$ $V_{RM}=40\text{V}$ $T_a=25^\circ\text{C}$	—	0.5	—	$\mu\text{A}$
ピーク順電圧 Peak Forward Voltage	$V_{FM}$	$I_{FM}=0.7\text{A}$ $T_a=25^\circ\text{C}$ $I_{FM}=1.0\text{A}$ $T_a=25^\circ\text{C}$	—	0.48	0.52	V
熱抵抗 Thermal Resistance	$R_{th(j-a)}$	接合部・周囲間 (Junction to Ambient)	*1 (アルミナ基板実装)		100	°C/W
			*2 (ガラエポ基板実装)		150	
	$R_{th(j-l)}$	接合部・リード間 (Junction to Lead)	—	—	30	

\*1: プリント基板実装/Alumina Substrate Mounted (Soldering Land=6×6mm)  
\*2: プリント基板実装/Glass-Epoxy Substrate Mounted (Soldering Land=6×6mm)

■定格・特性曲線

FIG.1  
順電圧特性  
FORWARD CURRENT VS. VOLTAGE

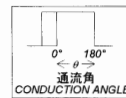
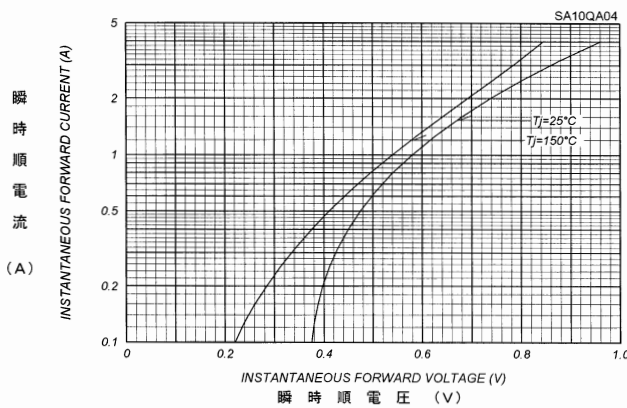


FIG.2  
平均順電力損失特性  
AVERAGE FORWARD POWER DISSIPATION

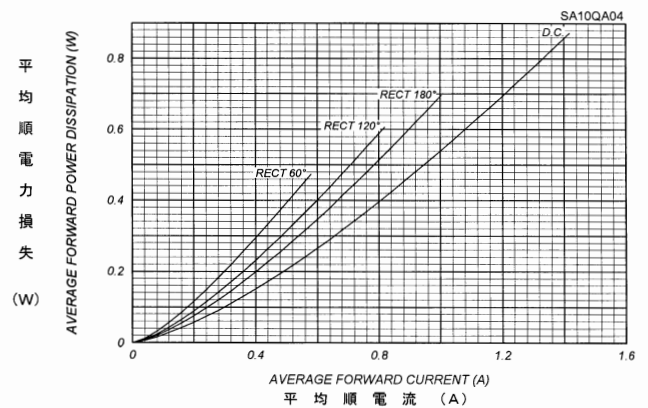


FIG.3  
ピーク逆電流 - ピーク逆電圧特性  
PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE  
 $T_j=150^\circ\text{C}$

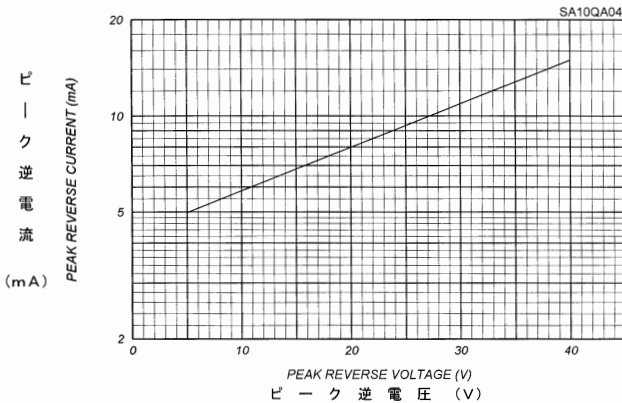
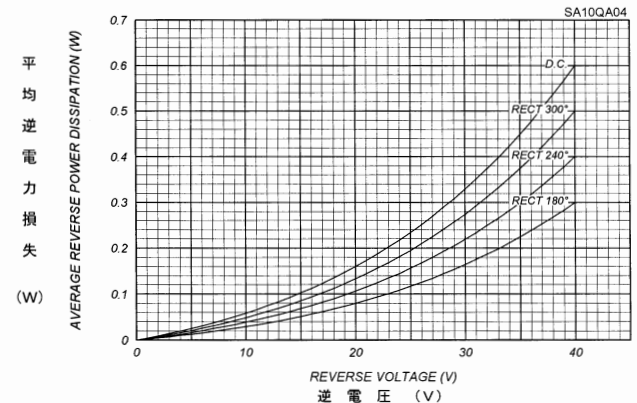


FIG.4  
平均逆電力損失  
AVERAGE REVERSE POWER DISSIPATION



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FIG.5

平均順電流一周圍温度定格  
AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE  
Alumina substrated Mounted,  $V_{RM}=20V$

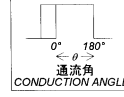
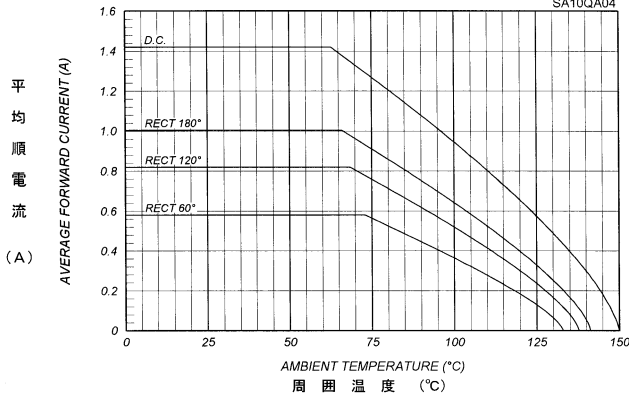


FIG.6

平均順電流一周圍温度定格  
AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE  
Glass-Epoxy substrated Mounted,  $V_{RM}=20V$

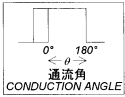
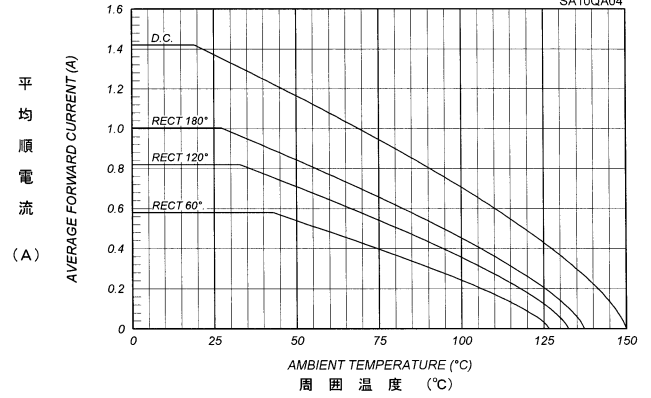


FIG.7

平均順電流一リード温度定格  
AVERAGE FORWARD CURRENT VS. LEAD TEMPERATURE  
 $V_{RM}=20V$

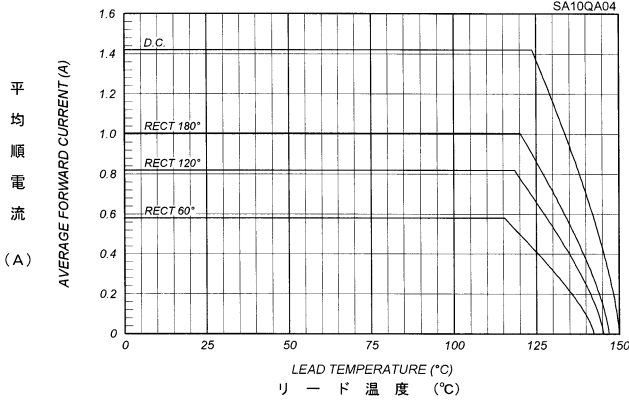


FIG.8

サージ順電流定格  
SURGE CURRENT RATINGS  
 $f=50\text{Hz}$ , Half Sine Wave, Non-Repertive, No Load

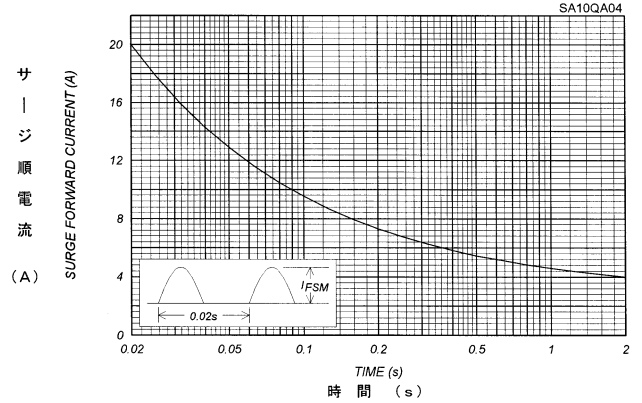


FIG.9

接合容量特性  
JUNCTION CAPACITANCE VS. REVERSE VOLTAGE  
 $T_J=25^\circ\text{C}$ ,  $V_m=20\text{mV}_{RMS}$ ,  $F=100\text{kHz}$  Typical Value

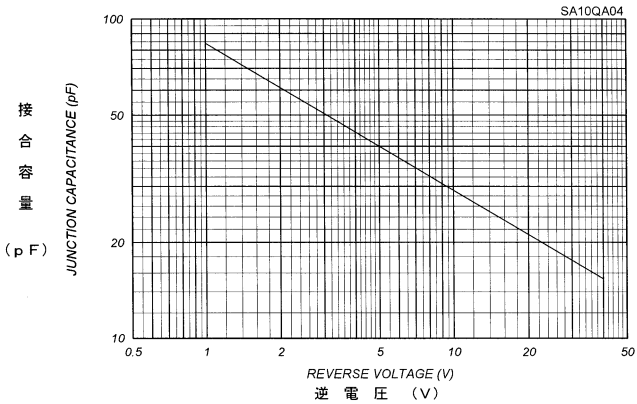


FIG.10

過渡熱抵抗特性  
Transient Thermal Impedance

