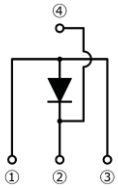
Fast Recovery Diode

ShinDengen
New power. Your power.

KSF30A40B

TO-247



■特長 / Features

- 高速trr
  Fast recovery time
- 低IR
  Low leakage current
- ソフトリカバリー
  Soft recovery
- RoHS指令対応
  RoHS compliant
- エポキシ樹脂 (UL94V-0 認定品)
  Epoxy Resin (UL94V-0 recognized)

■アプリケーション / Applications

- DC/DCコンバータ
  DC/DC converters
- AC/DC電源
  AC/DC power supplies
- フライホイール
  Freewheeling diodes

■最大定格 / Maximum ratings

Parameter	Symbol	Conditions	Limits	Unit
くり返しピーク逆電圧 Repetitive Peak Reverse Voltage	V_{RRM}		400	V
平均整流電流 Average Rectified Output Current	I_O	Tc=90℃	30.0	A
サージ順電流 Surge Forward Current	I_{FSM}	50Hz 正弦半波、1サイクル、非くり返し Half Sine Wave, 1cycle, Non-repetitive	400	A
動作接合温度範囲 Operating Junction Temperature Range	T_{jw}		-40 ～ +150	℃
保存温度範囲 Storage Temperature Range	T_{stg}		-40 ～ +150	℃

■電気的特性 / Electrical characteristics

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
ピーク逆電流 Peak Reverse Current	I_{RM}	$V_{RM}=V_{RRM}$ T_j=25℃	-	-	0.05	mA
ピーク順電圧 Peak Forward Voltage	V_{FM}	I_{FM}=30A T_J=25℃	-	-	1.25	V
逆回復時間 Reverse recovery time	t_{rr}	I_{FM}=10A T_J=25℃ -di/dt=50A/μs	-	-	60	ns
熱抵抗 Thermal Resistance	R_{th}	接合部ーケース間 Junction to Case	-	-	1.4	℃/W

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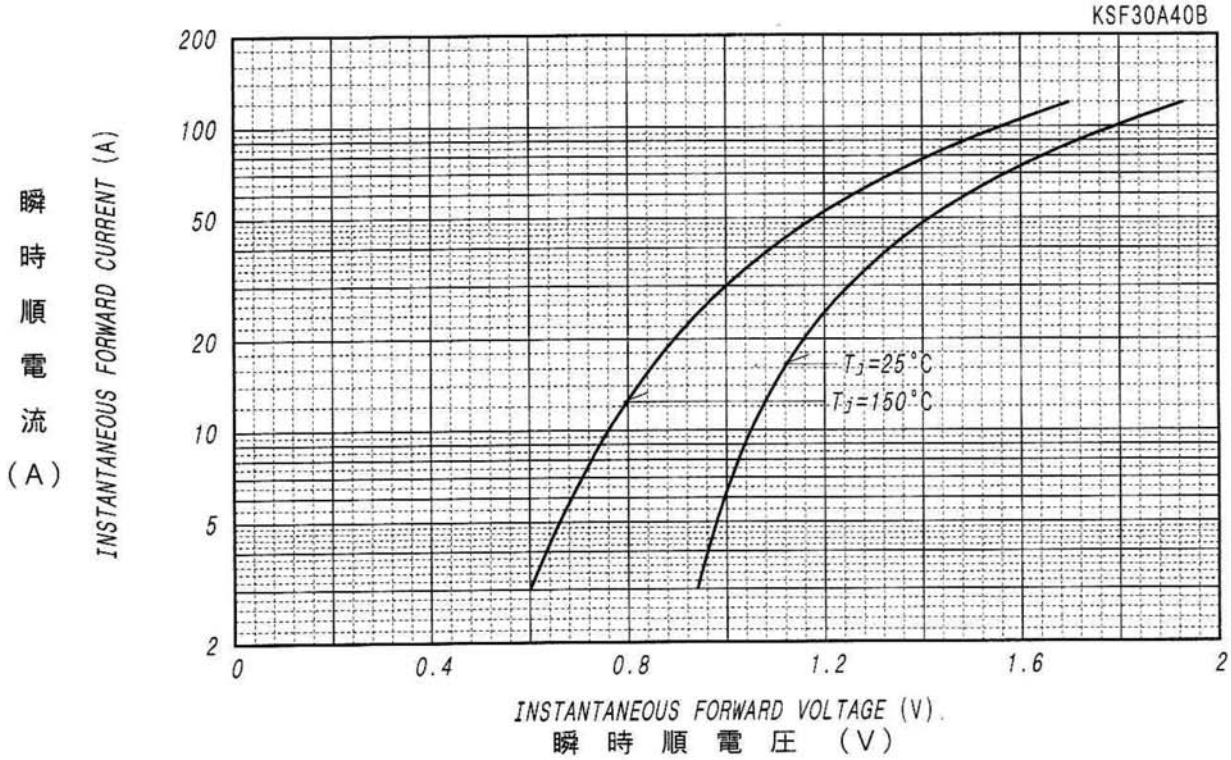
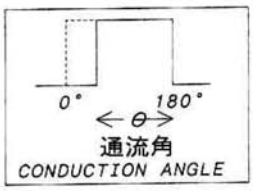
FORWARD CURRENT VS. VOLTAGE





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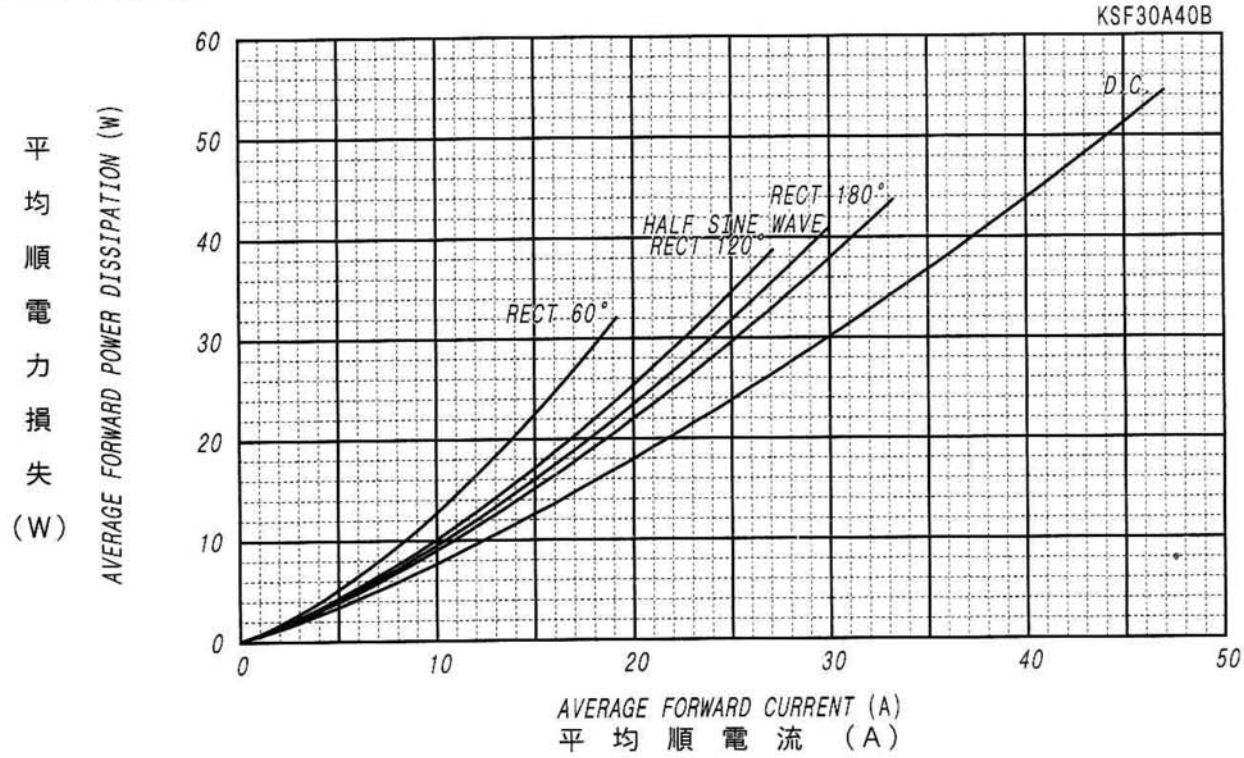
AVERAGE FORWARD POWER DISSIPATION



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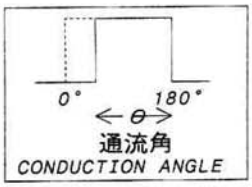

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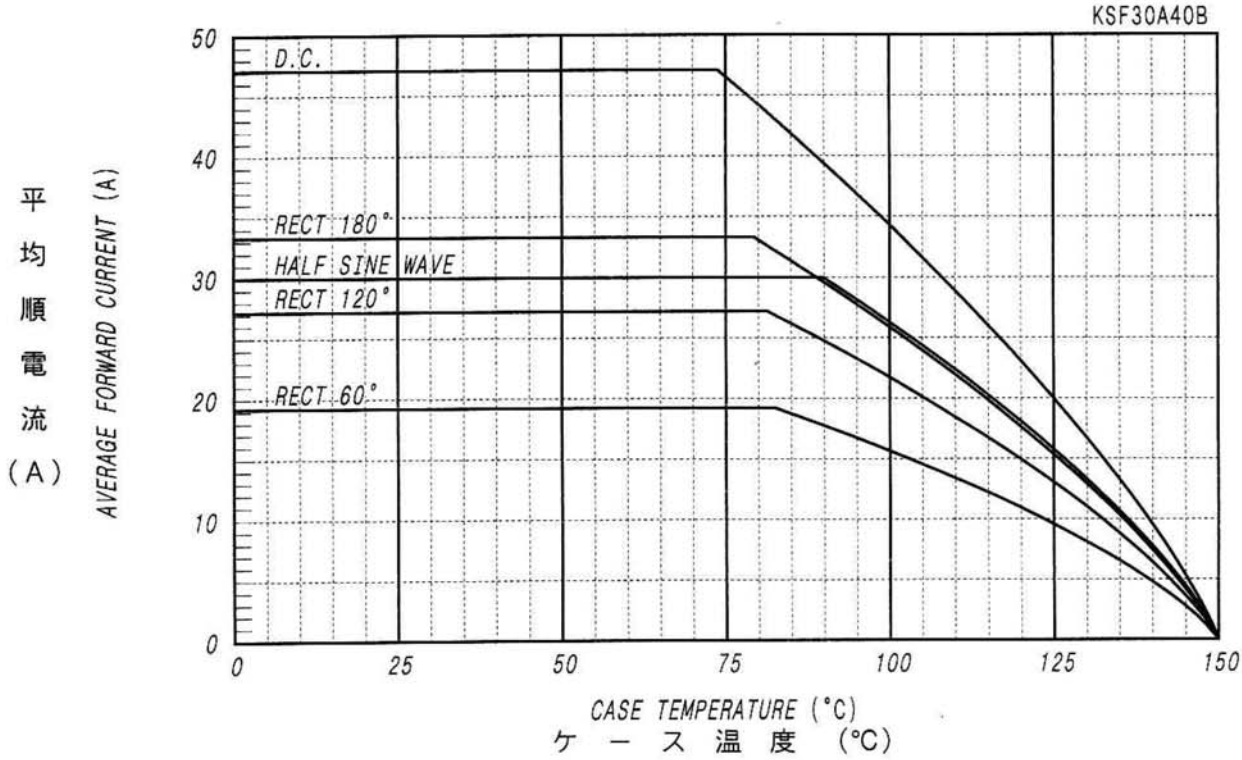
AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE



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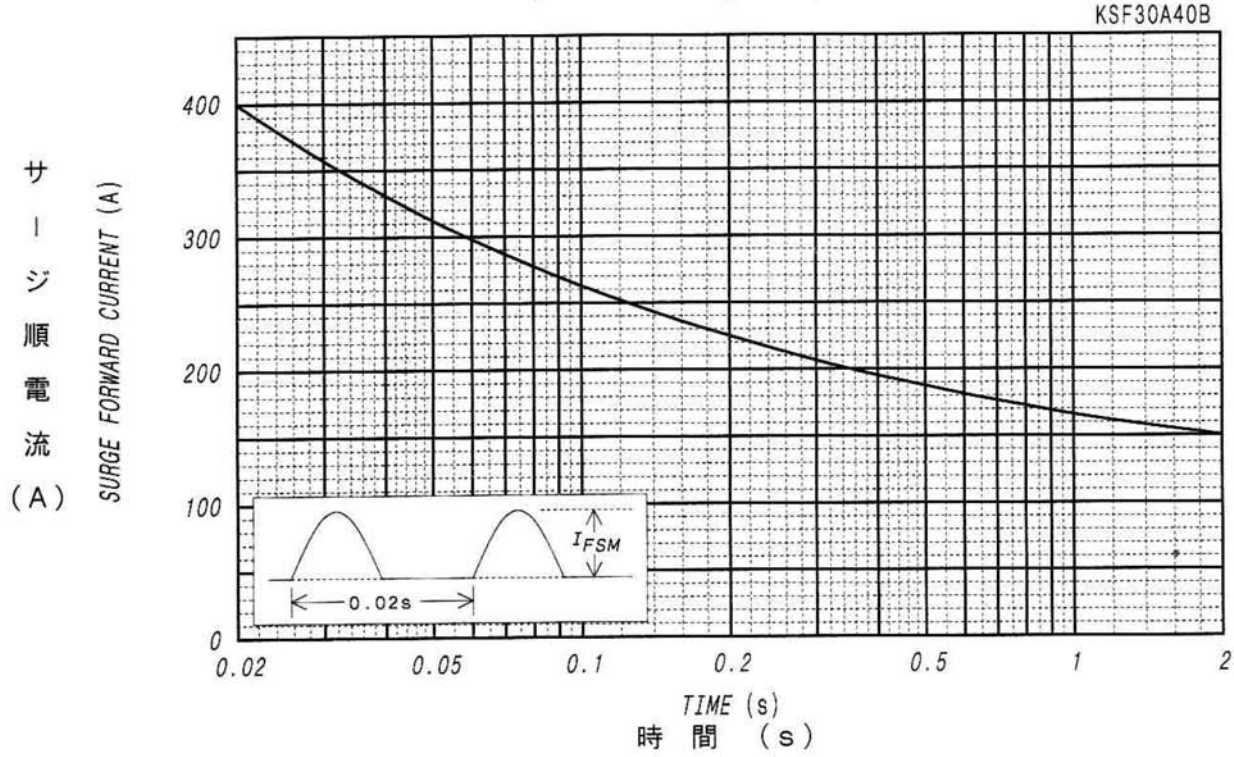
SURGE CURRENT RATINGS

f=50Hz,Half Sine Wave,Non-Repetitive,No Load



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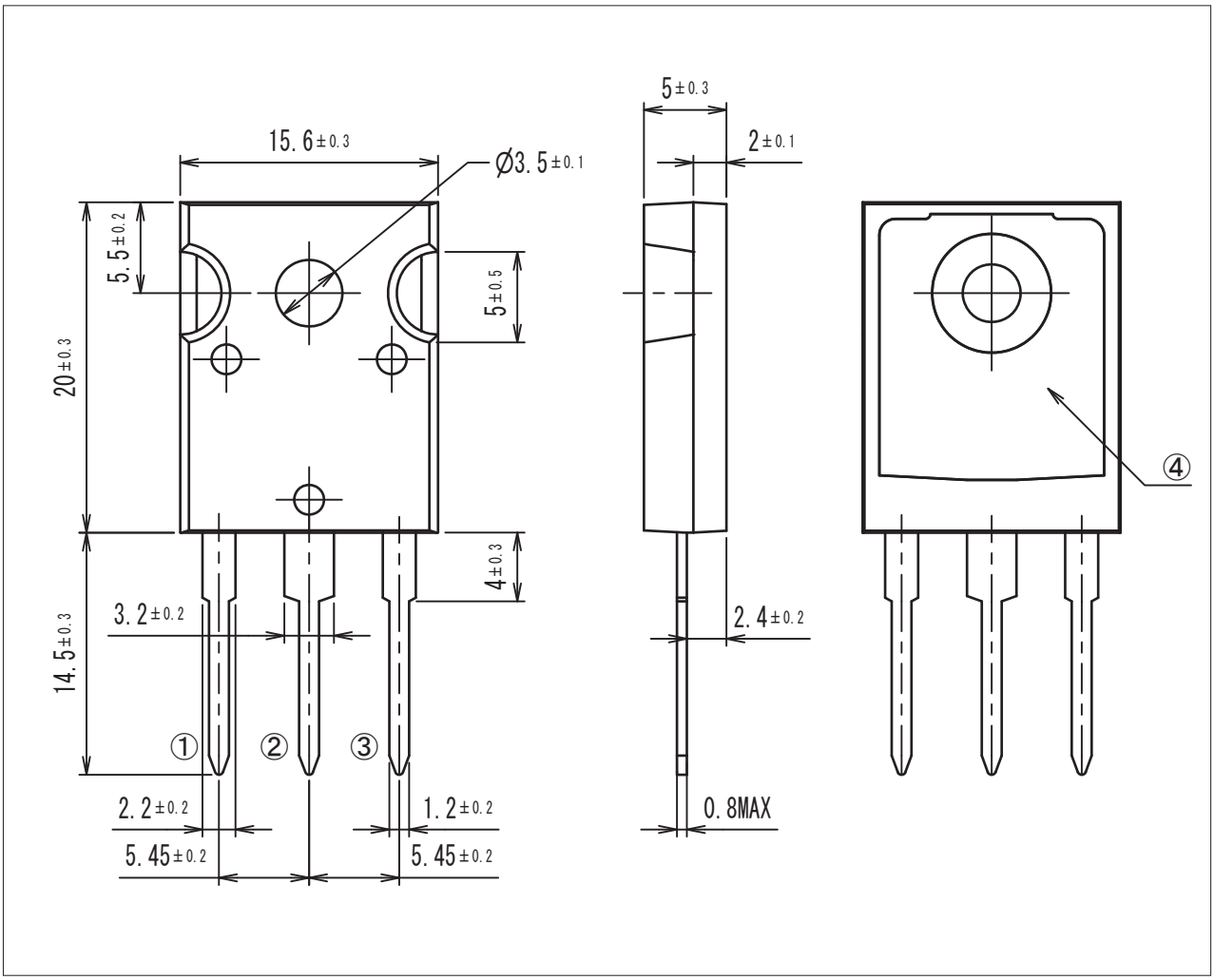

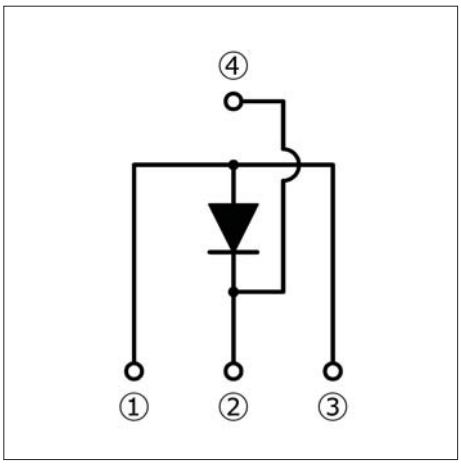

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   【Standard applications】
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   【Special applications】
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   【特定用途】
   原子力制御システム、航空機器、航空宇宙機器、海底中継機器、生命維持のための装置、システム等
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