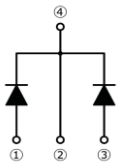
ShinDengen
New power. Your power.

Schottky Barrier Diode

KCQ60A04



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■特長 / Features

- 低VF
  Low forward voltage drop
- 高周波動作
  High frequency operation
- RoHS指令対応
  RoHS compliant

■アプリケーション / Applications

- 二次側整流
  Secondary side rectification
- DC/DCコンバータ
  DC/DC converters
- 逆流防止
  Re-Circulating Diode
- 太陽電池用バイパスダイード
  Bypass diode for Solar Cells
- OR-ing diode

■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}		40	V
平均整流電流 Average Rectified Output Current	I_O	Tc=83℃	60.0	A
サージ順電流 Surge Forward Current	I_{FSM}	50Hz 正弦全波、1サイクル、非くり返し Full 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℃ per diode	-	-	25.0	mA
ピーク順電圧 Peak Forward Voltage	V_{FM}	I_{FM}=30A T_j=25℃ per diode	-	-	0.58	V
熱抵抗 Thermal Resistance	R_{th}	接合部ーケース間 Junction to Case	-	-	1.0	℃/W

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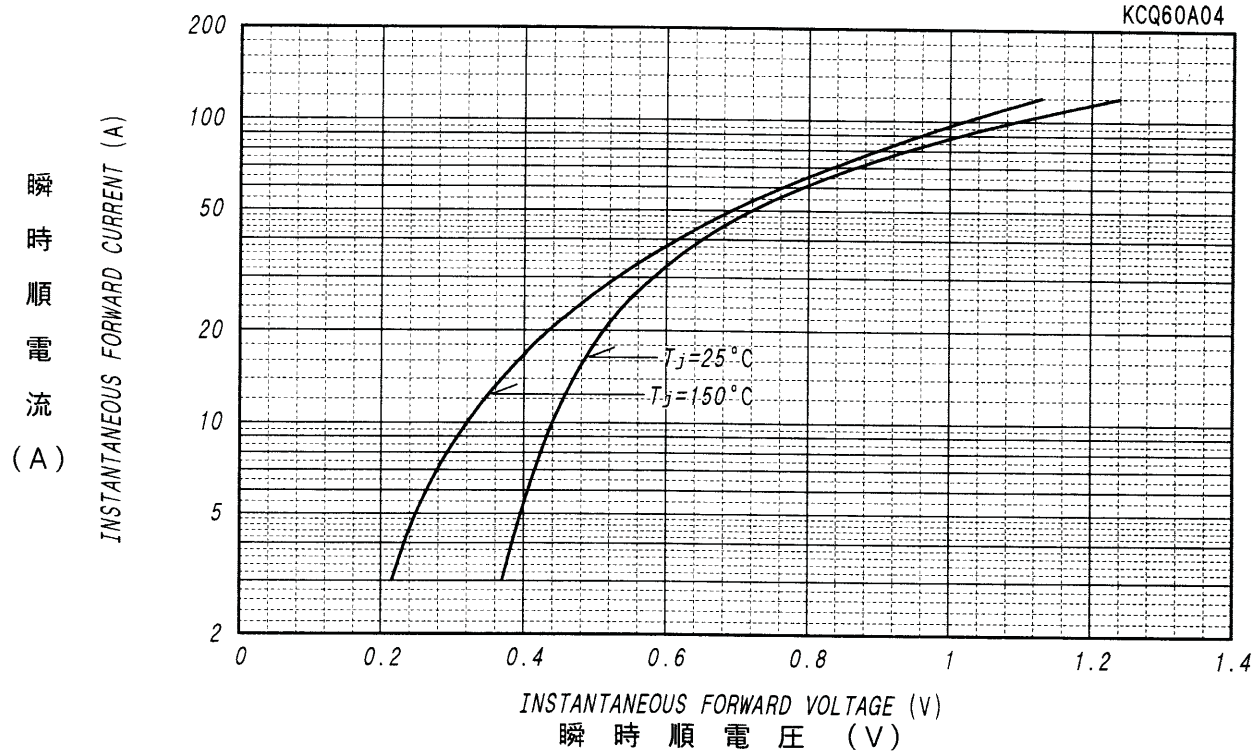
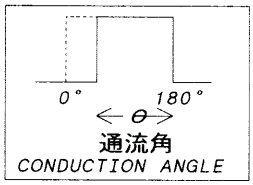
順 電 圧 特 性
FORWARD CURRENT VS. VOLTAGE





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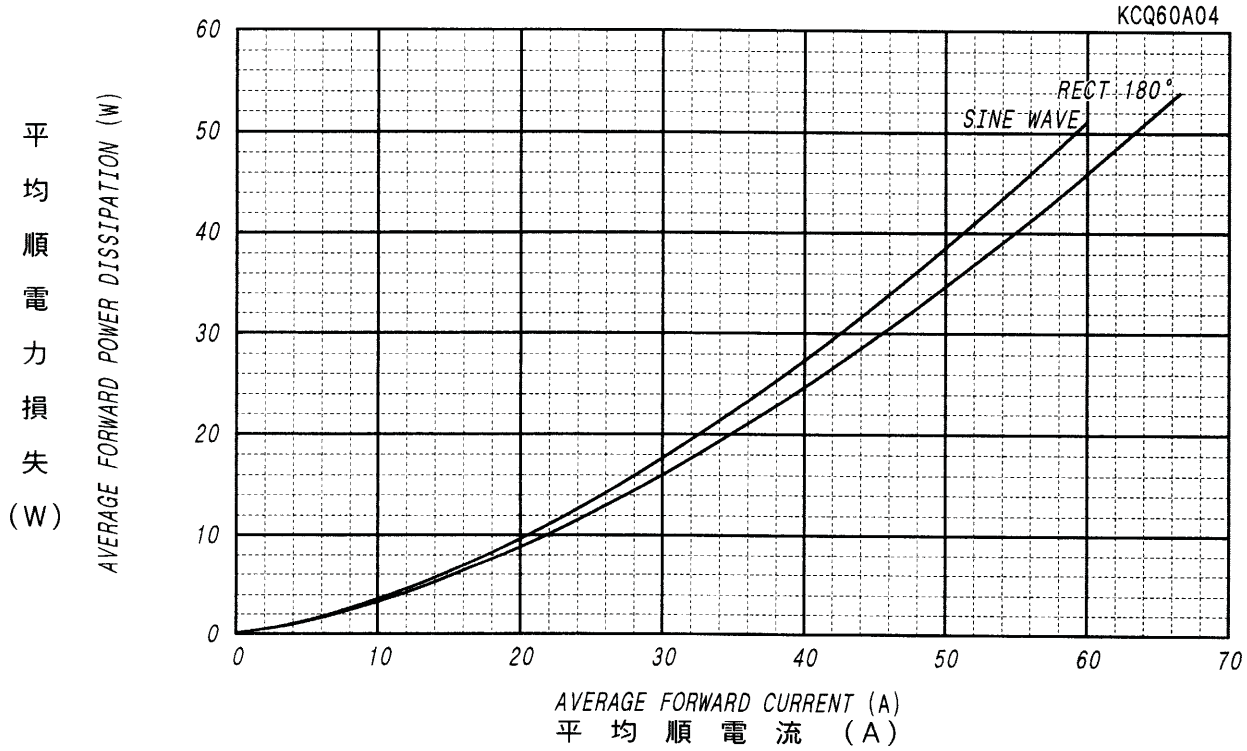
AVERAGE FORWARD POWER DISSIPATION



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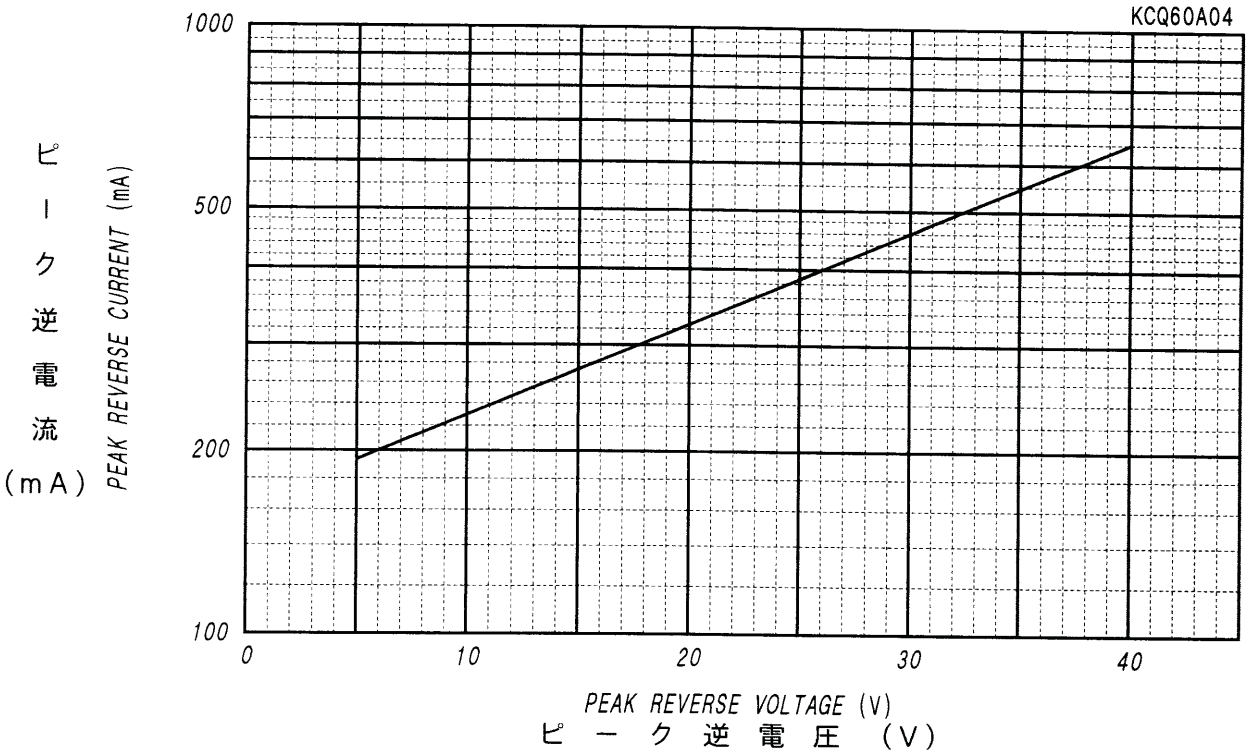
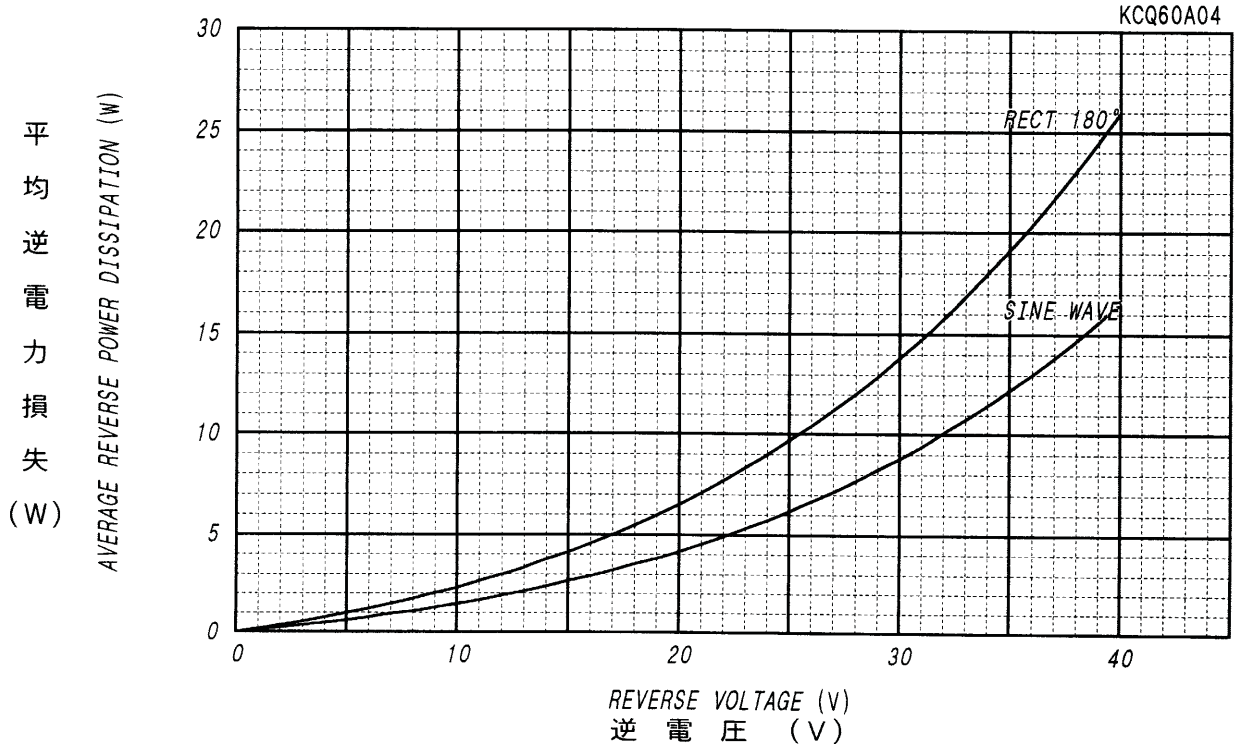
ピーク逆電流 － ピーク逆電圧特性
PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

Tj= 150°C



平均逆電力損失
AVERAGE REVERSE POWER DISSIPATION



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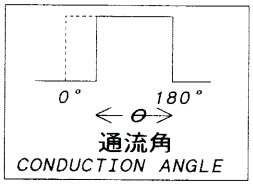

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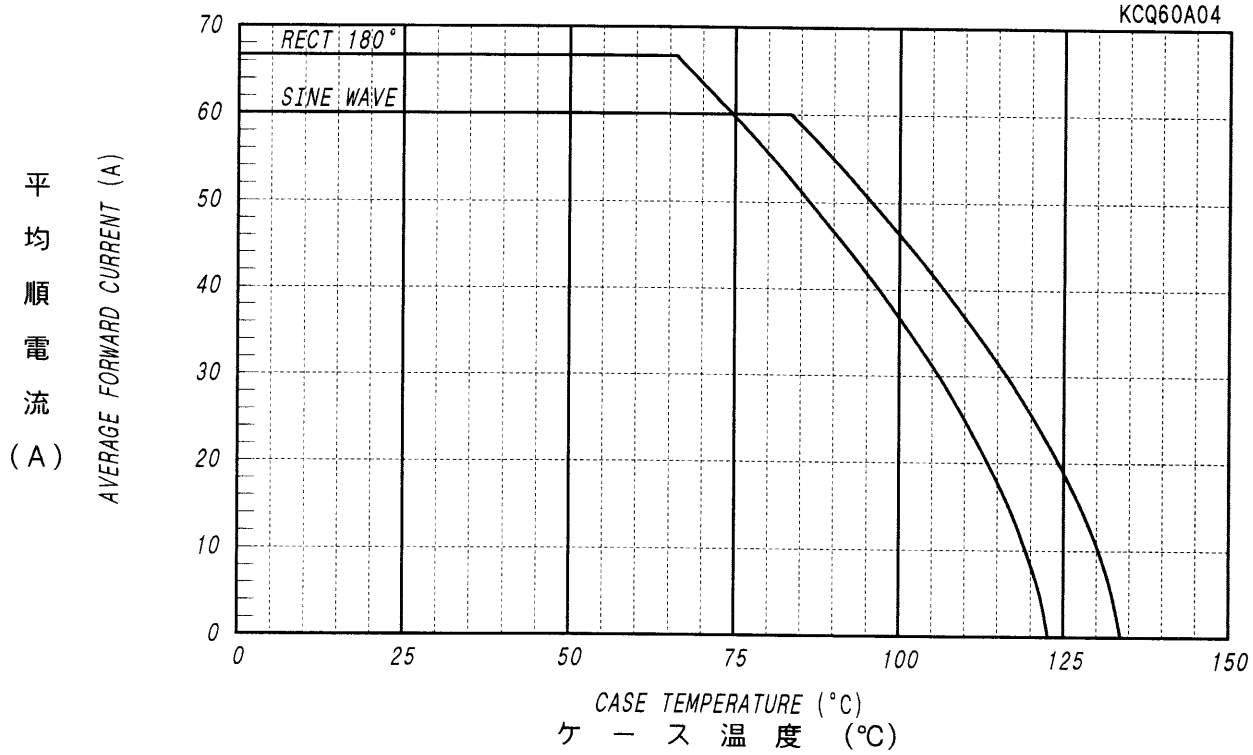
AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

VRM=40V



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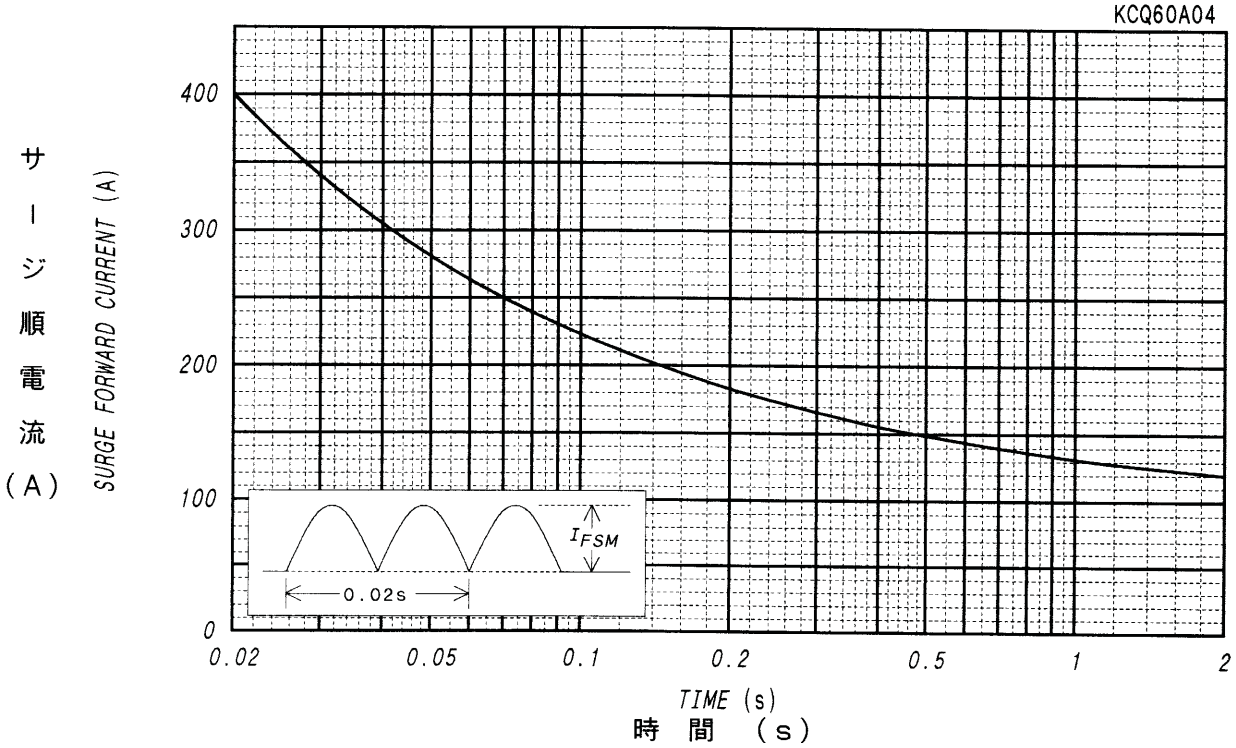
SURGE CURRENT RATINGS

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



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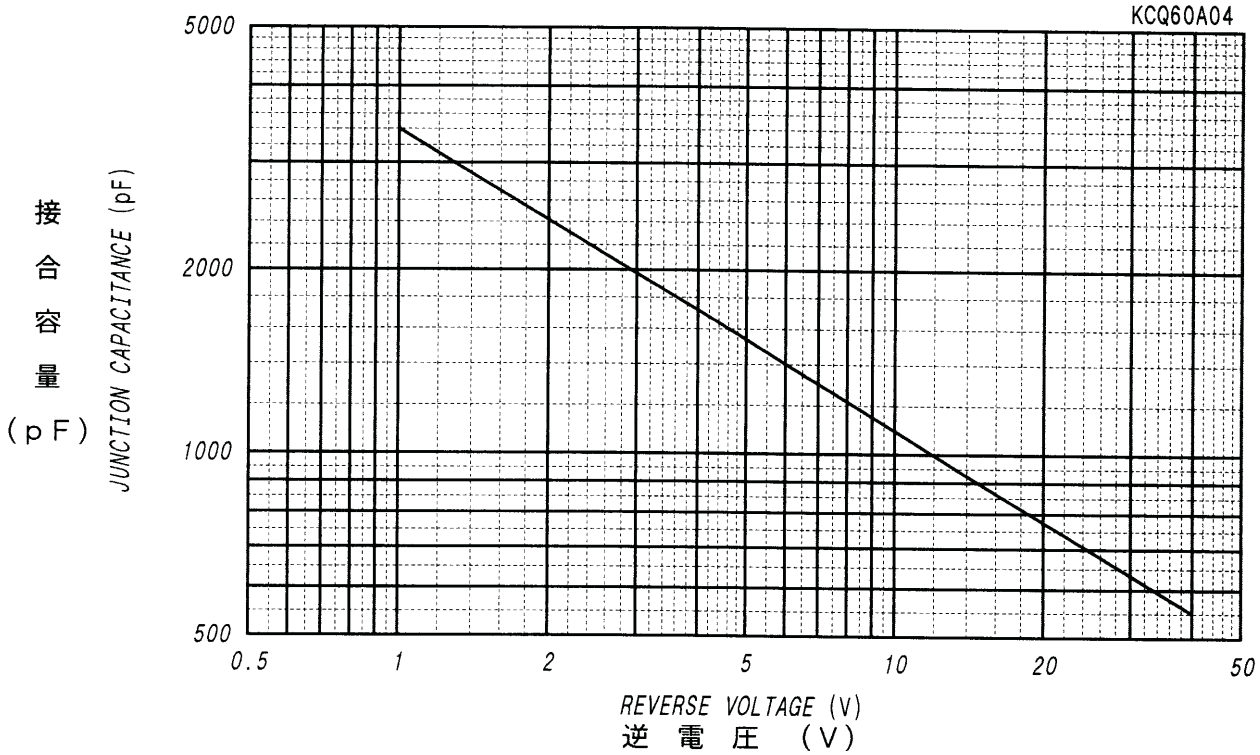
接 合 容 量 特 性

JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

Tj=25°C, Vm=20mVRMS, f=100kHz, Typical Value



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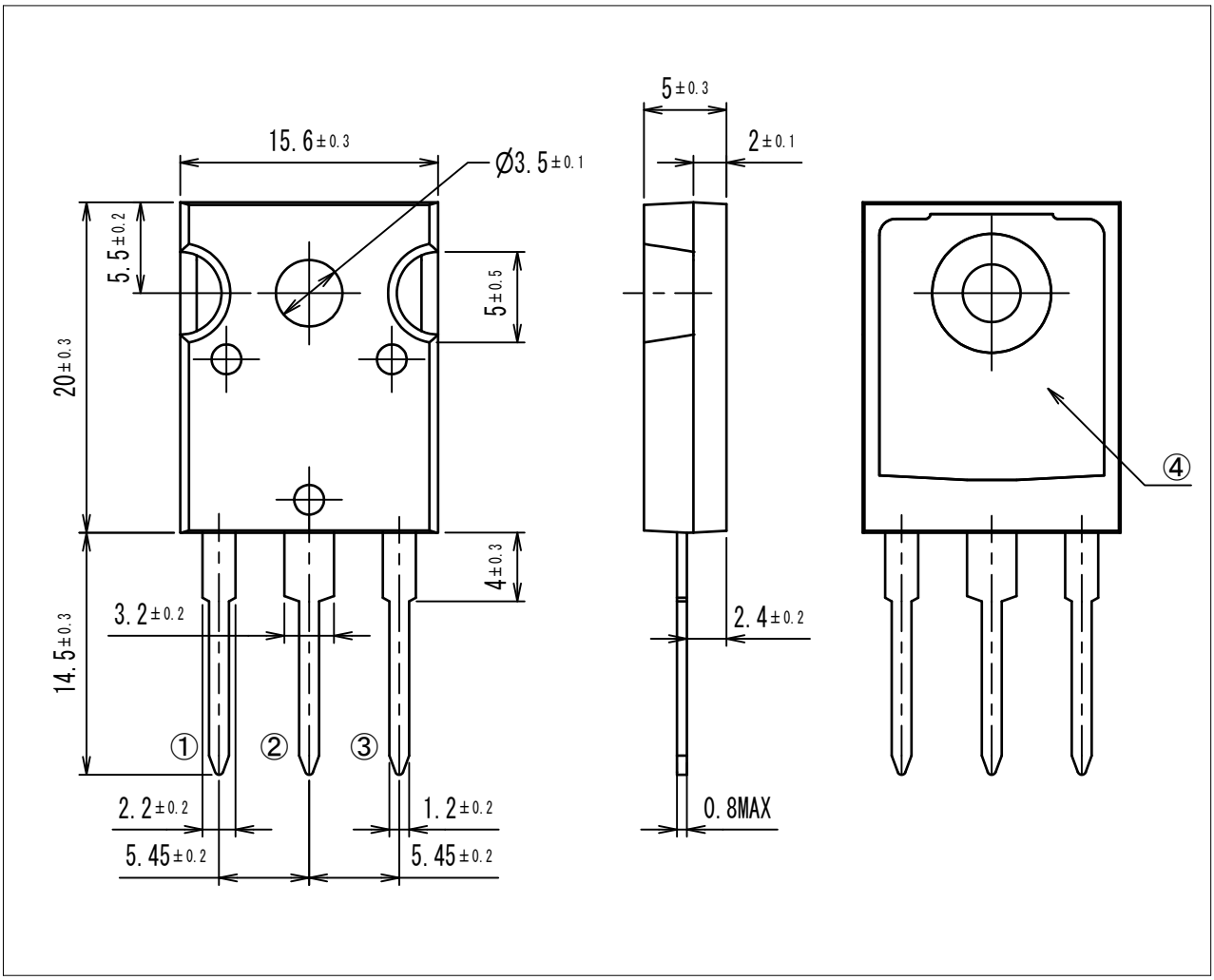

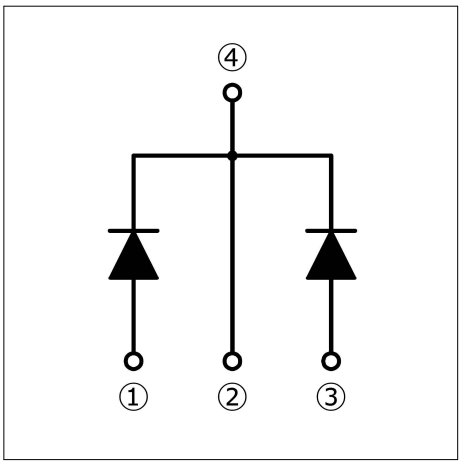

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   【Standard applications】
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   【Special applications】
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   【特定用途】
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