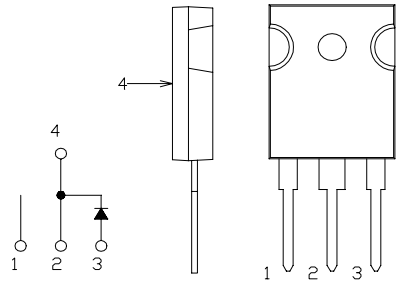
Nihon Inter Electronics Corporation

SBD Type : KSQ30A04B

OULINE DRAWING

FEATURES

* Similar to TO-247AC(TO-3P)Case
* Low Forward Voltage Drop
* Low Power Loss,High Efficiency
* High Surge Current Capability
* 40 Volts thru 60 Volts Types Available



Maximum Ratings

Approx Net Weight: 5.55g

Rating	Symbol	KSQ30A04B			Unit
Repetitive Peak Reverse Voltage	V_{RRM}	40			V
Average Rectified Output Current	I_O	30	Tc=107℃	50 Hz half Sine Wave Resistive Load	A
RMS Forward Current	$I_{F(RMS)}$	47.1			A
Surge Forward Current	I_{FSM}	400	50Hz Half Sine Wave ,1cycle Non-repetitive		A
Operating JunctionTemperature Range	T_{jw}	-40 to +150			℃
Storage Temperature Range	T_{stg}	-40 to +150			℃
Mounting torque	Ftor	recommended torque = 0.5			N•m

Electrical • Thermal Characteristics

Characteristics		Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current		I_{RM}	Tj= 25℃, V_{RM}= V_{RRM}	-	-	25	mA
Peak Forward Voltage		V_{FM}	Tj= 25℃, I_{FM}= 30 A	-	-	0.58	V
Thermal Resistance	Junction to Case	Rth(j-c)	Junction to Case	-	-	1.3	℃/W

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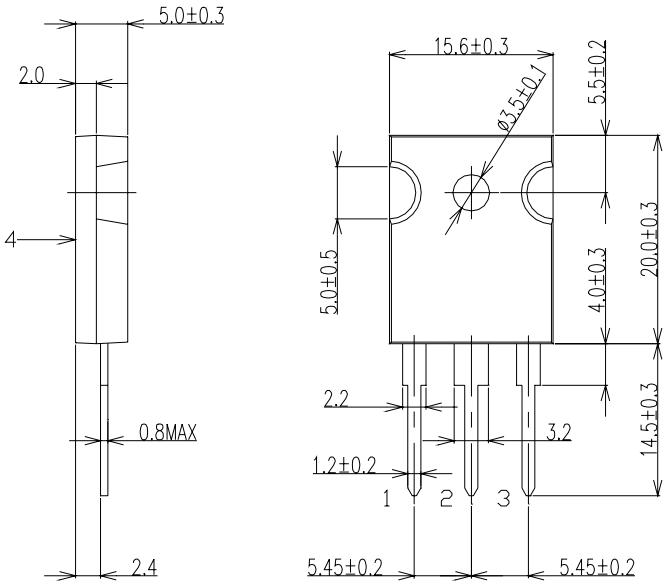
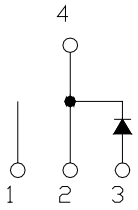
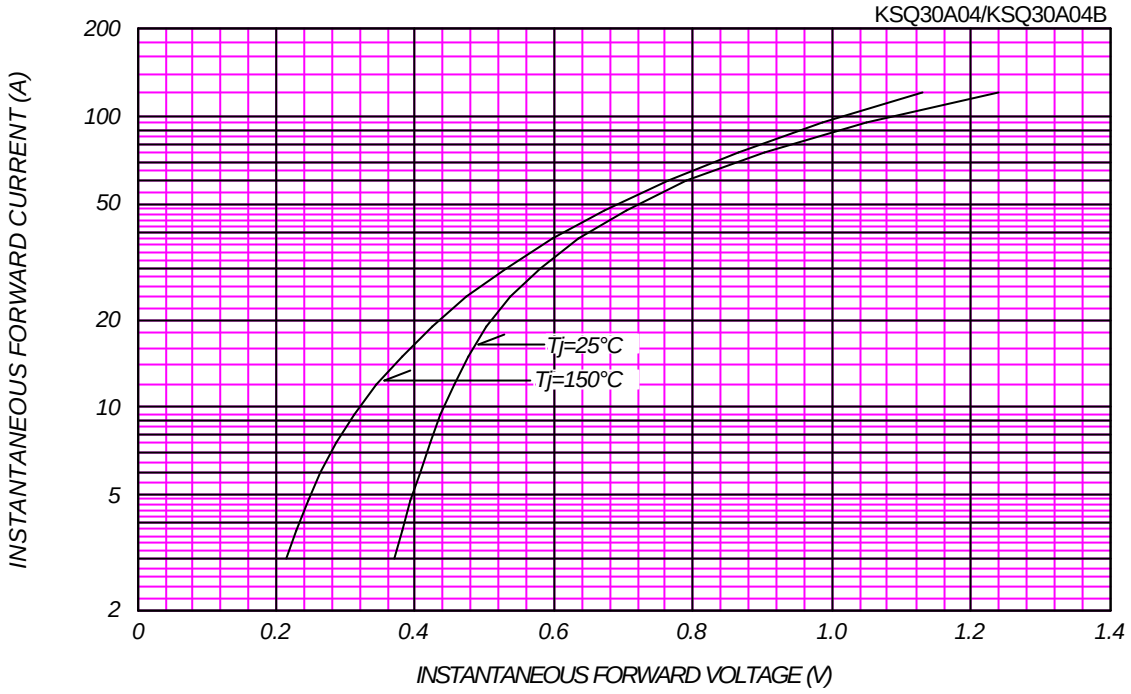
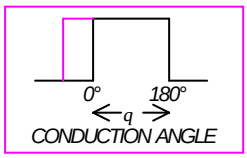
KSQ30A04B OUTLINE DRAWING (Dimention in mm)



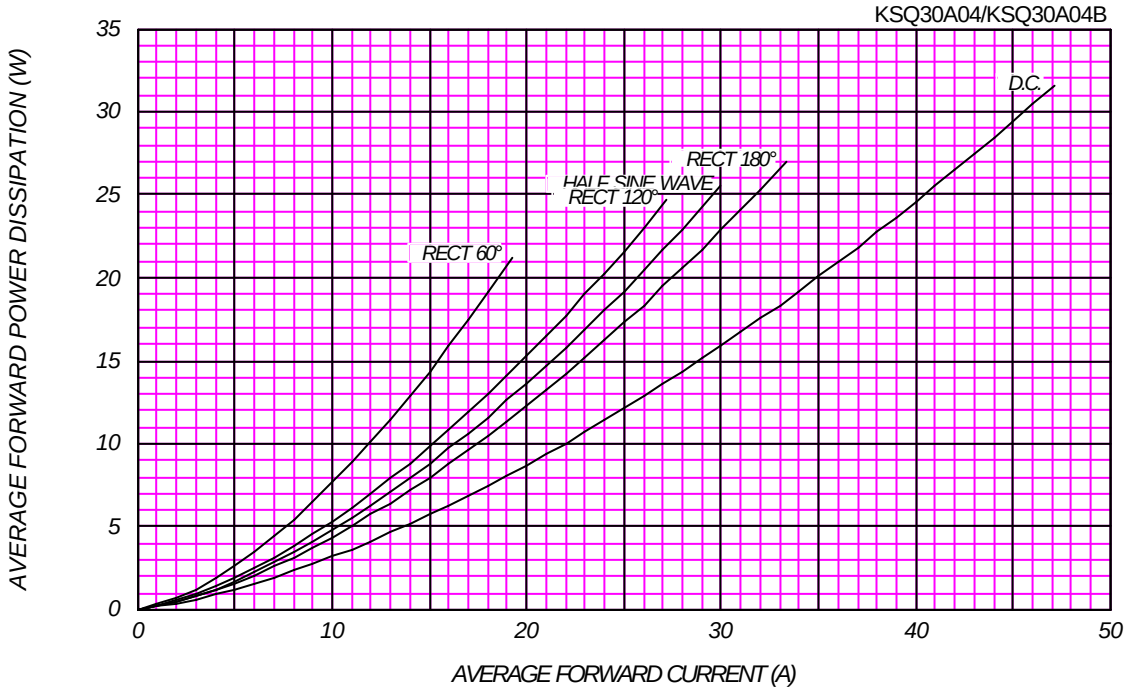


FORWARD CURRENT VS. VOLTAGE





AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

Tj= 150 °C

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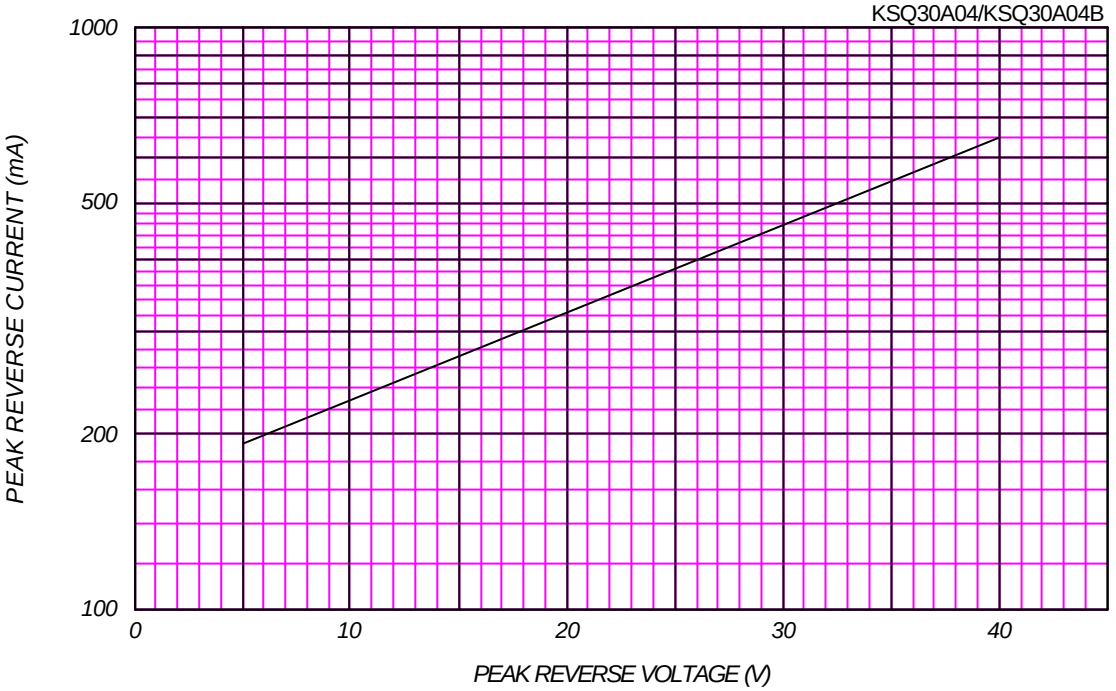
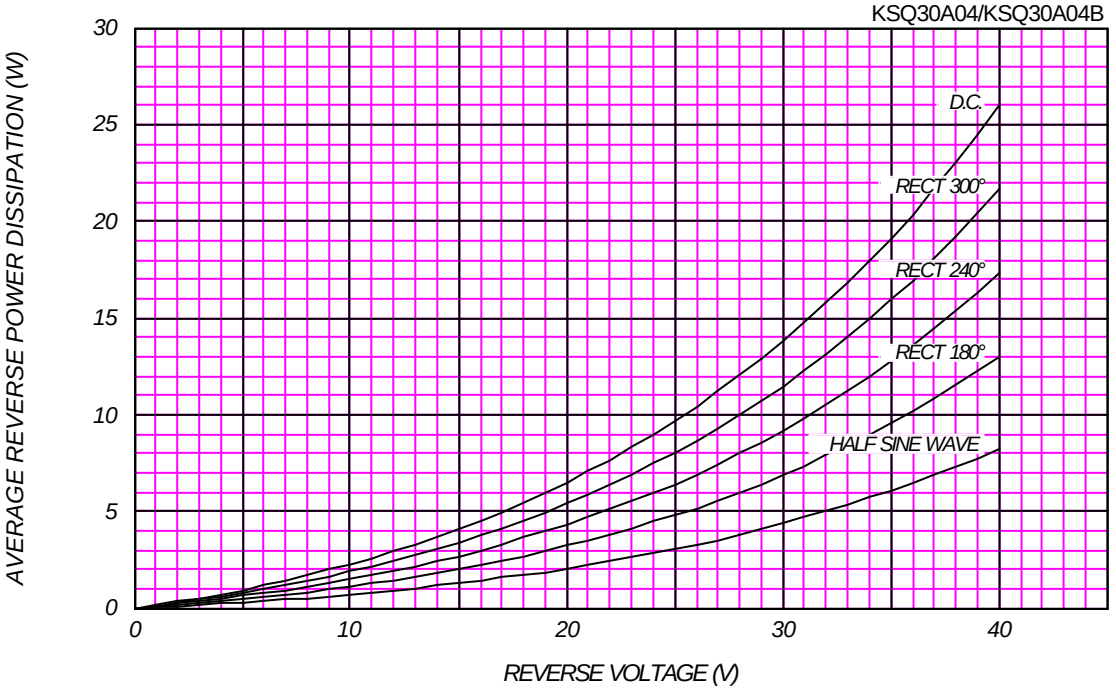
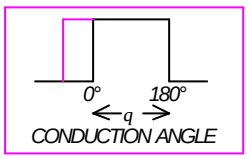


AVERAGE REVERSE POWER DISSIPATION

KSQ30A04/KSQ30A04B

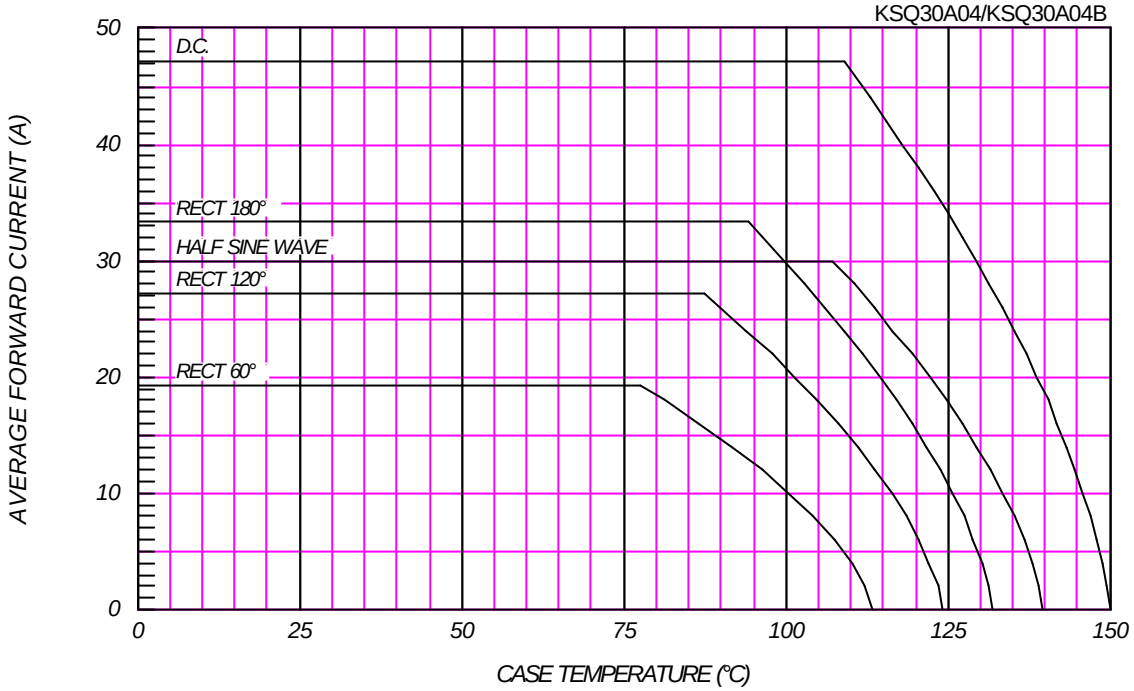




AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

V_{RM}=40 V

KSQ30A04/KSQ30A04B



SURGE CURRENT RATINGS

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

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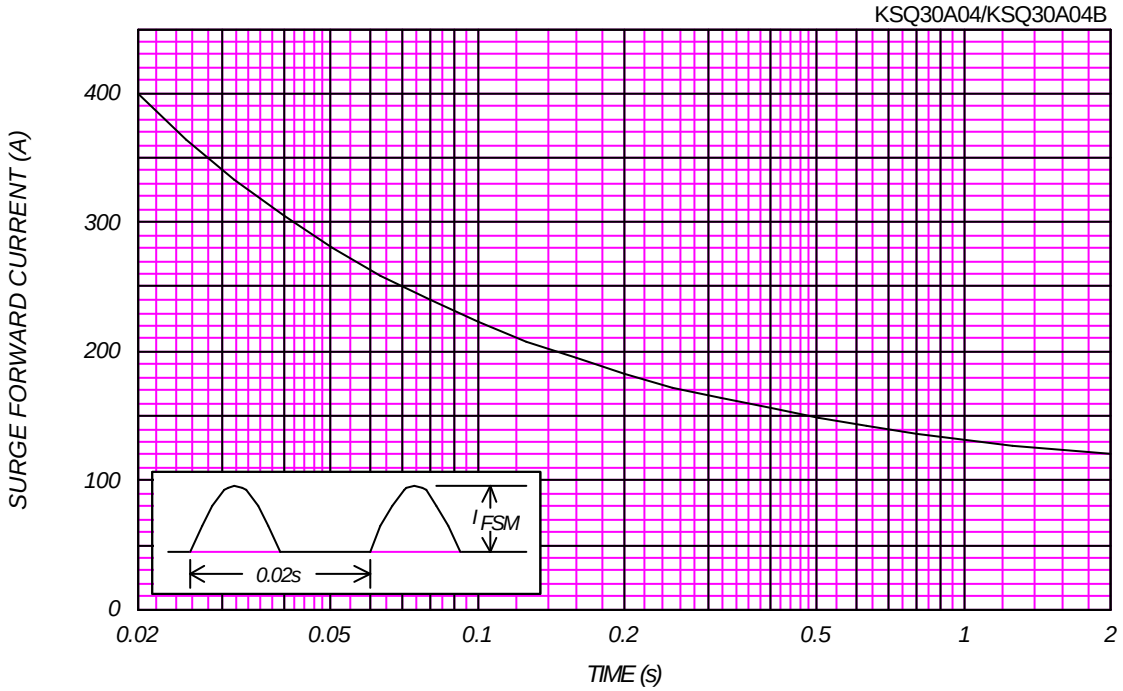

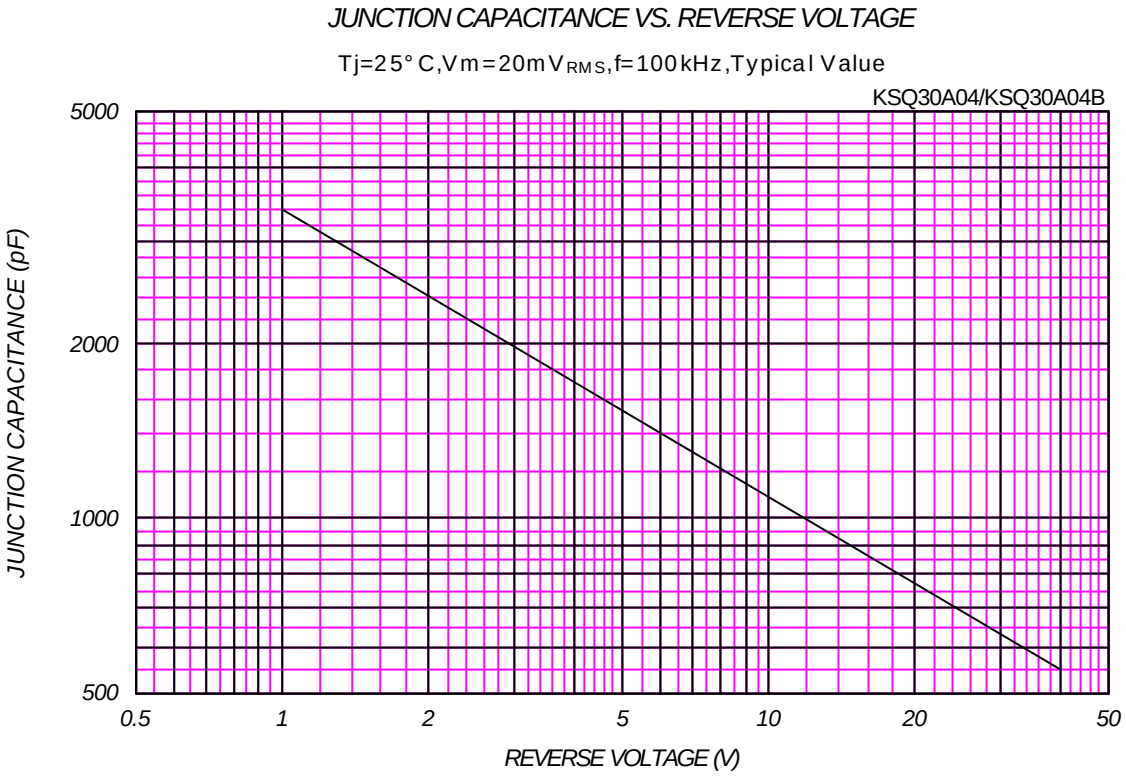
JUNCTION CAPACITANCE VS. REVERSE VOLTAGE
Tj=25° C,Vm=20mV RMS,f=100kHz,Typical Value
KSQ30A04/KSQ30A04B
5000
2000
1000
500
JUNCTION CAPACITANCE (pF)
0.5
1
2
5
10
20
50
REVERSE VOLTAGE (V)