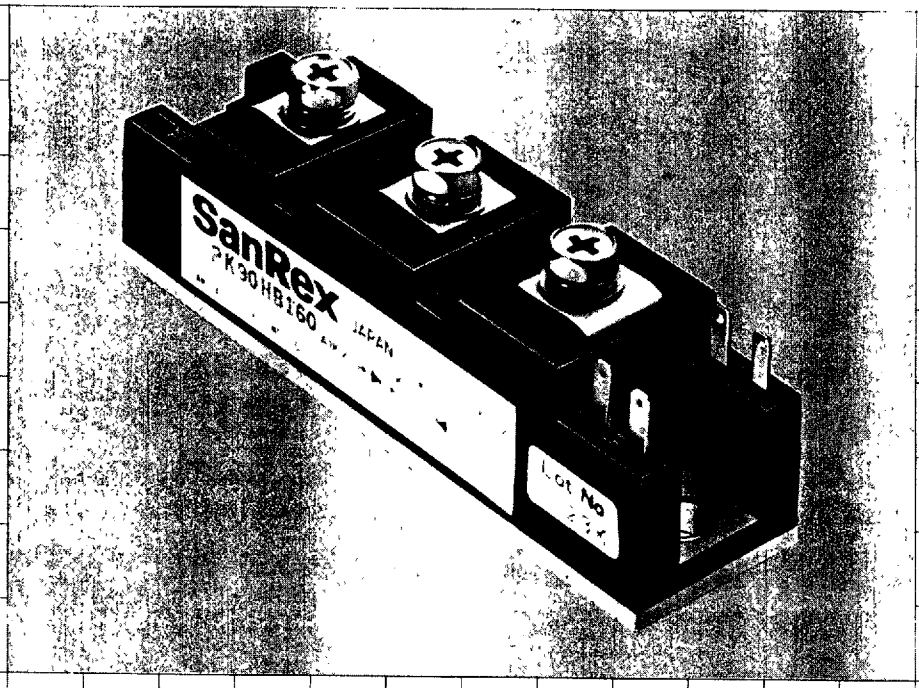

● Isolated Mounting Base
makes your mechanical design easy.

● High Reliable Glass Passivated Chips.
makes your system stable and reliable.

● V_{DRM} up to 1,600V
enables you to complete your system for the line voltage up to 400V.

● High temperature Capability
enables you to get high power.

■SanRex Power Semiconductor PK-G,H Series

Conection	(A) \ (V)	400	800	1200	1600
PK, PD, PE, KK	25	25GB		25HB	
	55	55GB		55HB	
	90	90GB		90HB	

■Definitions of terms and symbols used Thyristor

Symbol	Term	Definition
V_{RRM}(V)	Repetitive Peak rerense Voltage	The maximum reverse instantaneous recurrent voltage at which a thyristor will operate in the switching quadrants; the value is specified with the gate open.
V_{RSM}(V)	Non Repetitive Peak Reverse Voltage	The maximum instantaneous transient voltage at which a thyristor will operate in the noise.
V_{DRM}(V)	Repetitive Peak off-state Voltage	The maximum fomard instantaneous recurrent voltage at which a thyristor will operate in the switching quadrants; the volue is specified with the gate open.
$I_{T(AV)}$(A)	The average sinewave on-state current	The maximum average on-state current at which the thyristor will operate at a specified referenced temperature. For reverseblocking and conducting thyristors this value is specified for 180° conduction angle.
$I_{T(RMS)}$(A)	R.M.S on-state current	The maximum RMS(on-state)current at which a thyristor will operate at a specific referenced temperature. This value is specified for 180° conduction.. angle.
I_{TSM}(A)	Surge on-state current	The non-repetitive current rating of the thyristor; measured at 25℃. This value is measured with onehalf cycle sinewave current. This surge on state current shall be kept less then 100 tims during serviceable life of device will destroied.
I^2t(A^2·S)	I^2t value for fusing	In the event that a type of overload or short circuit can be classified as non-recurrent, the rated junction temperature can be exceeded for a brief instant, therby allowing additional overcurdurrent rating. Rating of nonrecurrent duty are given by the Surge Current and I^2t rating.
P_{GM}(W)	Peak gate power dissipation	Repetitive peak gate power dissipation: allowable maximum value gate to Cathode.
$P_{G(AV)}$(W)	Average gate power dissipation	Average gate power dissipation: allowable average value gate to cathode.
I_{FGM}(A)	Peak gate current	Repetitive peak gate current, allowable maximum value, gate to cathode.
V_{FGM}(V)	Peak gate voltage	Repetitive peak gate voltage, allowable maximum value, gate to cathode.
V_{RGM}(V)	Peak reverse gate voltage	Repetitive peak reverse gate voltage, allowable maximum value, cathode to gate.
di/dt(A/μs)	Critical rate of rise of on-state current	The maximum rate of current rise which a thyristor can withstand without being damaged. Local "hot spot" heating will occur due to high current density in junction regions that have starged to conduct.
Tj(℃)	Junction temperature	Temperature at junction during operation, and the same of pellet in device shall be regulated at upper and lower limit in an allowable range. The device will break due to difference of thermal expansion between silicon and molybdenum and copper anode in lower temperature. In higher temperature, thermal runaway lack of stability in silicon passivation, and deterioration in various characteristics will occur.
I_{DRM}(mA)	Repetitive peak off-state and reverse current	Peak value of the leakage current at the state of gate open. Measured at V_{DRM}, and V_{RRM}, gate open.
I_{RRM}	Repetitive peak reverse current	Peak value of the leakage current at the state of gate open. Measured at V_{DRM}, and V_{RRM},gate open.
V_{TM}(V)	On-state voltage	The principle voltage between anode and cathode, measured at a specified current at 25℃. This measurement is determined with a instantaneous sinewave current with the peak values indicated. V_{TM} is measured by following equation. $V_{TM}=\pi\times I_{T(AV)}$
I_{GT}(mA)	Gate trigger current	The maximum gate current required to switch a thyristor to the on-state; usuall measured at 25℃.
V_{GT}(V)	Gate trigger voltage	The voltage required to swith a thyristor to the on-state measured at 25℃.
V_{GD}(V)	Non-trigger gate voltage	Maximum trigger voltage that thyristor will not turn on.
tgt(μsec)	Turn-on time	The time required to turn on a power thyristor measured at a specified current from a point on the gate pulse front, to a point on the main current or voltage pulse front, during the interval the thyristor is turning on; measured at 25℃.
dv/dt(V/μs)	Critical rate of rise of off-state voltage	The minimum rate of rise of the main voltage which will switch the thyristor on. The rating covers the case of initially operating the device from an anode voltage source which has superposed fast rise-time transients. Static dv/dt capability is an inverse function of device junction temperature as well as a complex function of the transient waveform.
I_H(mA)	Holding current	The current required to sustain conduction of the thyristor in the on-state; measured at 25℃.
I_L(mA)	Latching current	The current required to sustain conduction in the on-state immediately after the device has been switched to the on-state and the gate voltage removed.
Rth(℃/Watt)	Thermal impedance	Normal thermal impedance junction to case.