

## Short Form Data Sheet

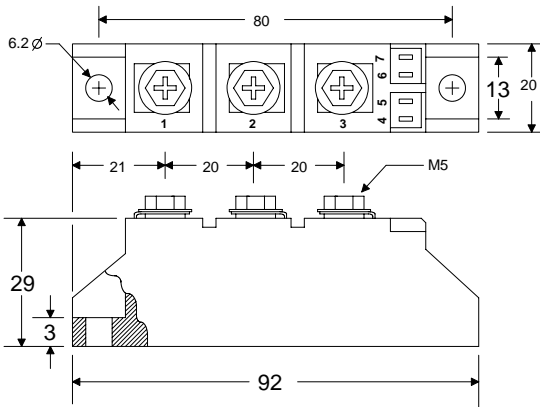
Part number scheme

**PS KD 55 N 12 KNX**  
1 2 3 4 5 6

- 1) Power Semiconductors initials
- 2) Circuit designation
- 3) Series number
- 4) Designates standard recovery time
- 5) Voltage Multiplier (example: 12 x 100 = 1200)
- 6) Proprietary suffix

### Features:

- ✓ All diffused silicone.
- ✓ Module package compatible with JEDEC T0-240AA.
- ✓ Thick copper base plate.
- ✓ Isolated cooling, rated up to 3500  $V_{RMS}$
- ✓ Heat sink grounded.



KD circuit diagram



### Voltage

Parameter	Symbol	Rating	Units
Maximum Repetitive Reverse Voltage <small>Notes: 1, 3, 4, 5, 6</small>	$V_{RRM}$	1200 ~ 1800	Volts
Maximum non repetitive Surge of Reverse Voltage <small>Notes: 2, 3, 4, 5, 6</small>	$V_{RSM}$	$V_{RRM} + 100$	Volts
Maximum Non Repetitive Forward Voltage <small>Notes: 2</small>	$V_{FM}$ @ $I_{FM}$	1.6 @ 150	V @ A
<small>Note 1: <math>T_J</math> 25°C. Note 2: <math>T_J</math> 125°C. Note 3: Measured at the peak of the sine wave, Note 4: Below 0°C derate <math>V_{RRM}</math> 10%. Note 5: <math>V_{RRM}</math> have <math>I_{RRM}</math> of up to 20mA. Note 6: <math>V_{RR}</math> has typical <math>I_{DR}</math>, <math>I_{RR}</math> of 2~7mA. Note 7: For DC applications derate <math>V_{RRM}</math> 45%.</small>			
Specifying voltage:	1400V, PSKD55N14 1200V, PSKD55N12	1800V, PSKD55N18 Above 1800V inquire about availability.	

### Amperage

Parameter	Symbol	Rating	Units
Maximum, Average Current <small>Notes: 3, 4</small>	$I_{F(AVE)}$	55	Amperes
Maximum, RMS Current <small>Notes: 3, 4</small>	$I_{F(RMS)}$	86	Amperes
Maximum non repetitive Surge Current with no reverse voltage reapplied. <small>Notes: 2, 4</small>	$I_{FSM}$ 0% $V_{RRM}$	1.3	kA
$I_{RR}$ = Typical Repetitive, Reverse, Current. <small>Note: 1</small>	$I_{RR}$	3 ~ 7	mA
$I_{RRM}$ = Maximum (threshold), Repetitive, Reverse, Current. <small>Note: 1</small>	$I_{RRM}$	30	mA
Fuse's absolute maximum $I^2 t$ with no reverse voltage reapplied <small>Note: 2, 4</small>	$I^2 t$ , 0% $V_{RR}$	11.6	kA
Fuse's absolute maximum $I^2 t$ with 100% reverse voltage reapplied <small>Note: 2, 4</small>	$I^2 t$ , 100% $V_{RR}$	8.3	A
<small>Note 1: <math>T_J</math> 25°C. Note 2: <math>T_J</math> 125°C. Note 3: <math>T_{CASE}</math> 55°C air cooled. Note 4: 180° conduction, 60Hz sine wave.</small>			

### Thermal & Weight

Parameter	Symbol	Rating	Units
Operating Temperature Range	$T_J$	-40° ~ 180°	°Celsius
Maximum Thermal resistance, Junction to Case <small>Notes: 1, 2</small>	$R_{th-J-C}$	0.25	°C/W
Maximum Thermal resistance, Case to Heat Sink <small>Notes: 1, 2</small>	$R_{th-C-HS}$	0.15	°C/W
Weight		120	Grams
		4.2	oz.
<small>Note 1: Mounting surfaces flat and greased. Note 2: 180° conduction, 60Hz sine wave.</small>			