

## Silicon Standard Recovery Diode

$V_{RRM} = 400\text{ V} - 1800\text{ V}$

$I_F = 165\text{ A}$

### Features

- High Surge Capability
- Types up to 1800 V  $V_{RRM}$
- Equivalent to SKR130 Series

DO-8 Package



Maximum ratings, at  $T_j = 25\text{ °C}$ , unless otherwise specified (GKN has leads reversed)

Parameter	Symbol	Conditions	GKR130/04	GKR130/08	GKR130/12	GKR130/14	GKR130/16	GKR130/18	Unit
Repetitive peak reverse voltage	$V_{RRM}$		400	800	1200	1400	1600	1800	V
DC blocking voltage	$V_{DC}$		400	800	1200	1400	1600	1800	V
Continuous forward current	$I_F$	$T_C \leq 100\text{ °C}$	165	165	165	165	165	165	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ °C}, t_p = 10\text{ ms}$	2500	2500	2500	2500	2500	2500	A
Operating temperature	$T_j$		-40 to 180	-40 to 180	-40 to 180	-40 to 180	-40 to 180	-40 to 180	°C
Storage temperature	$T_{stg}$		-55 to 180	-55 to 180	-55 to 180	-55 to 180	-55 to 180	-55 to 180	°C

Electrical characteristics, at  $T_j = 25\text{ °C}$ , unless otherwise specified

Parameter	Symbol	Conditions	GKR130/04	GKR130/08	GKR130/12	GKR130/14	GKR130/16	GKR130/18	Unit
Diode forward voltage	$V_F$	$I_F = 60\text{ A}, T_j = 25\text{ °C}$	1.5	1.5	1.5	1.5	1.5	1.5	V
Reverse current	$I_R$	$V_R = V_{RRM}, T_j = 180\text{ °C}$	22	22	22	22	22	22	mA

### Thermal characteristics

Parameter	Symbol	Conditions	GKR130/04	GKR130/08	GKR130/12	GKR130/14	GKR130/16	GKR130/18	Unit
Thermal resistance, junction - case	$R_{thJC}$		0.35	0.35	0.35	0.35	0.35	0.35	K/W

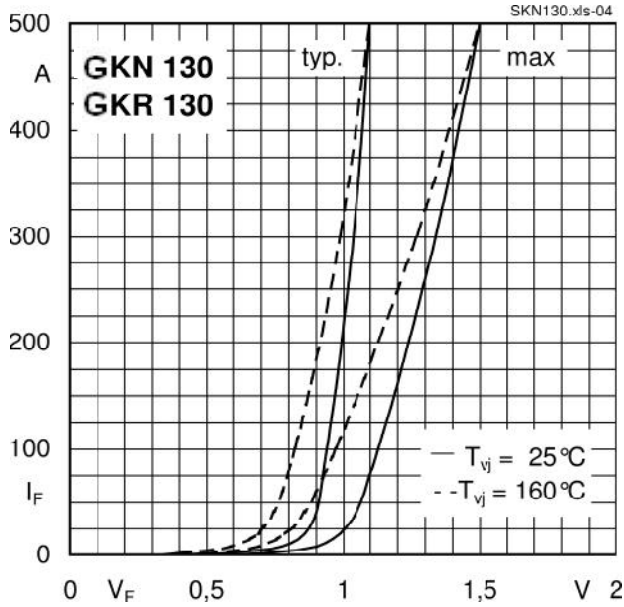


Fig 1: Forward Characteristics

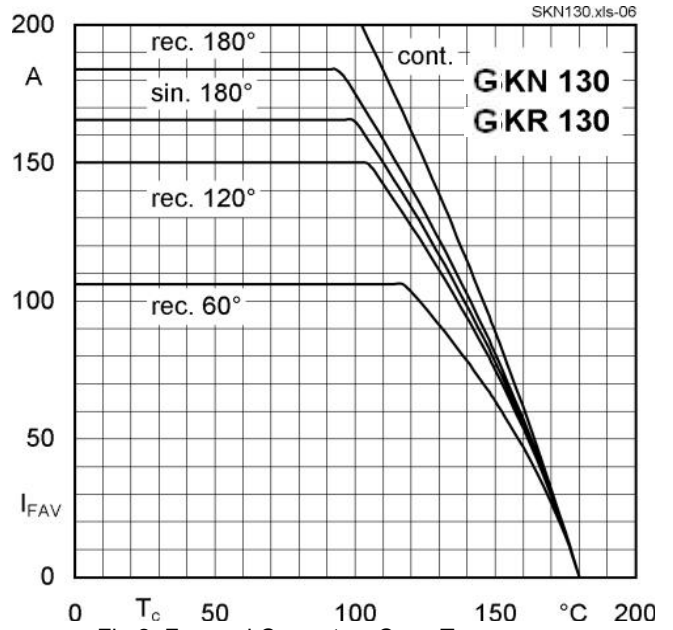


Fig 2: Forward Current vs Case Temp

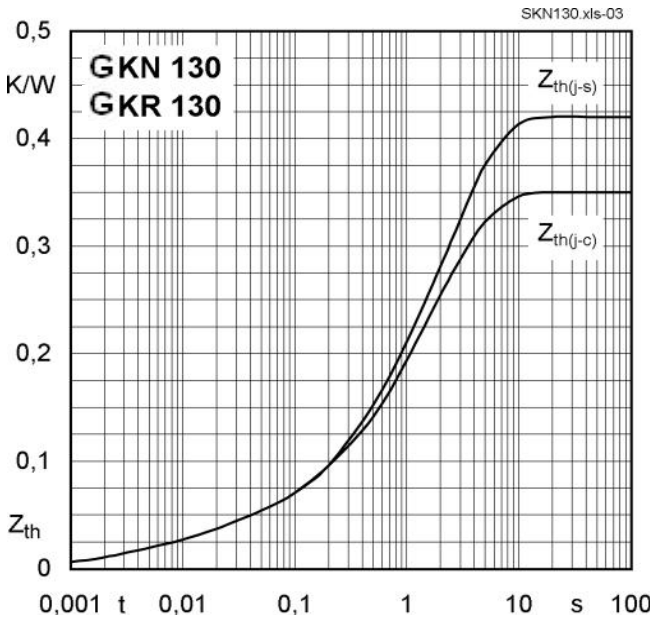


Fig 3: Transient Thermal Impedance vs Time

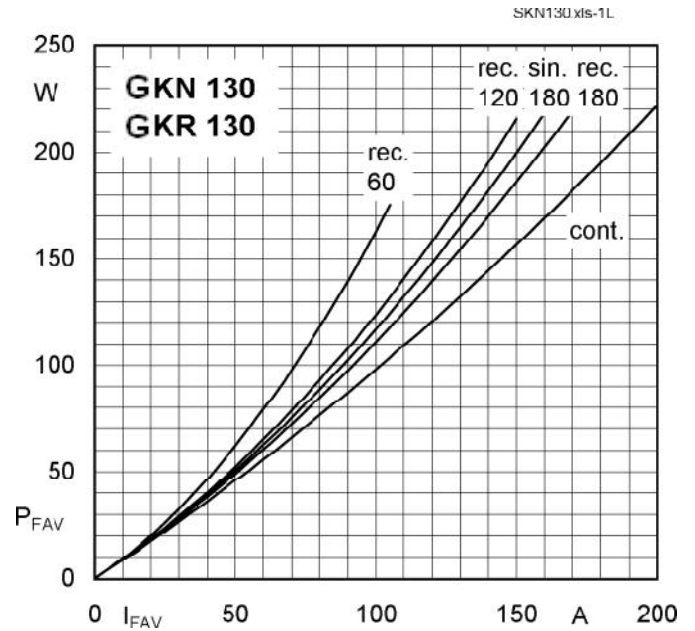


Fig 4: Power Dissipation vs Forward Current