

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 $T_J = 25^\circ\text{C}$, 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	$T_C \leq 100^\circ\text{C}$	165	165	165	165	165	165	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25^\circ\text{C}$, $t_p = 10 \text{ ms}$	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	$^\circ\text{C}$
Storage temperature	T_{stg}		-55 to 180	-55 to 180	-55 to 180	-55 to 180	-55 to 180	-55 to 180	$^\circ\text{C}$

Electrical characteristics, at $T_J = 25^\circ\text{C}$, unless otherwise specified

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

Thermal characteristics

Thermal resistance, junction - case	R_{thJC}		0.35	0.35	0.35	0.35	0.35	0.35	K/W
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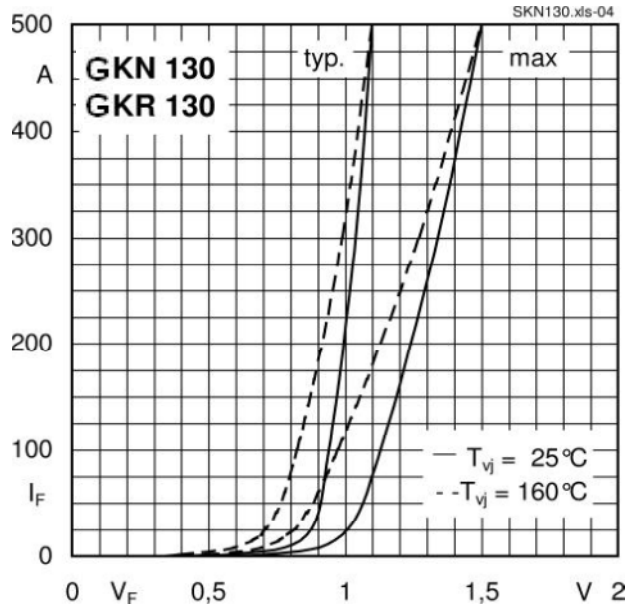


Fig 1: Forward Characteristics

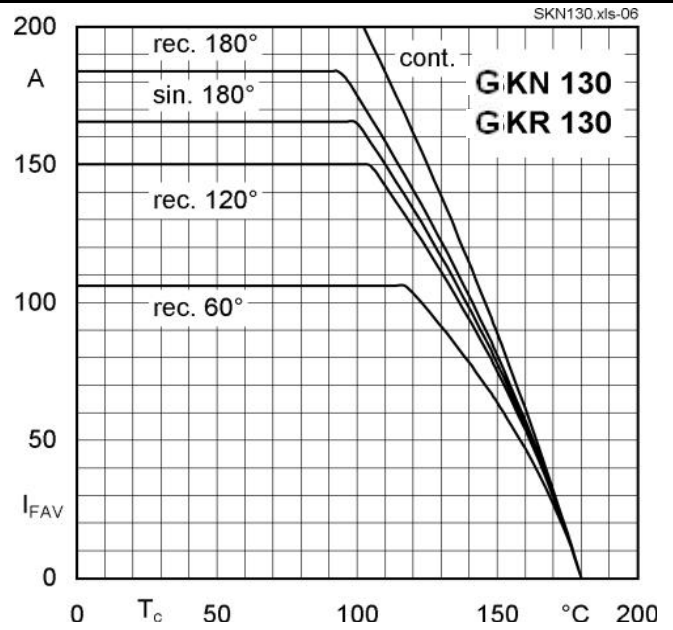


Fig 2: Forward Current vs Case Temp

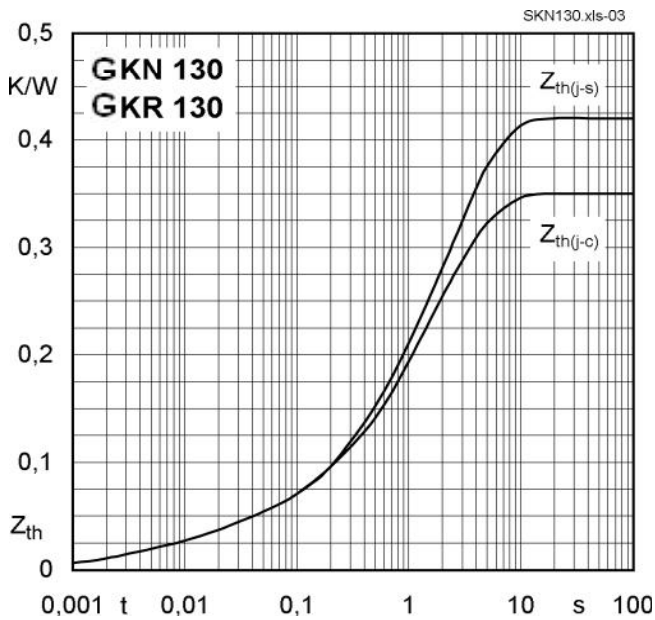


Fig 3: Transient Thermal Impedance vs Time

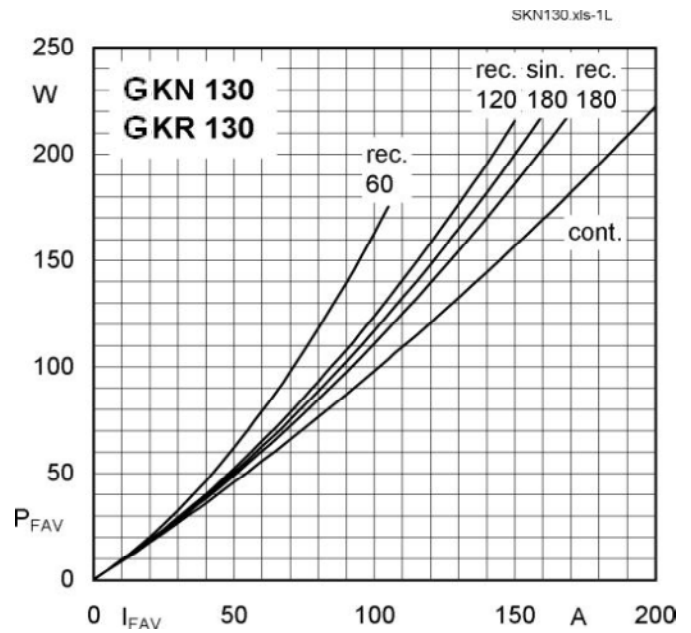


Fig 4: Power Dissipation vs Forward Current