

Silicon Power Schottky Diode

$V_{RRM} = 20\text{ V} - 40\text{ V}$

$I_F = 15\text{ A}$

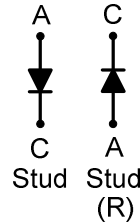
Features

- High Surge Capability
- Types up to 40V V_{RRM}

Note:

1. Standard polarity: Stud is cathode.
2. Reverse polarity (R): Stud is anode.
3. Stud is base.

DO-5 Package



Maximum ratings, at $T_j = 25\text{ }^\circ\text{C}$, unless otherwise specified ("R" devices have leads reversed)

Parameter	Symbol	Conditions	1N5826 (R)	1N5827 (R)	1N5828 (R)	Unit
Repetitive peak reverse voltage	V_{RRM}		20	30	40	V
RMS reverse voltage	V_{RMS}		14	21	28	V
DC blocking voltage	V_{DC}		20	30	40	V
Continuous forward current	I_F	$T_C \leq 100\text{ }^\circ\text{C}$	15	15	15	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ }^\circ\text{C}$, $t_p = 8.3\text{ ms}$	500	500	500	A
Operating temperature	T_j		-65 to 150	-65 to 150	-65 to 150	$^\circ\text{C}$
Storage temperature	T_{stg}		-65 to 175	-65 to 175	-65 to 175	$^\circ\text{C}$

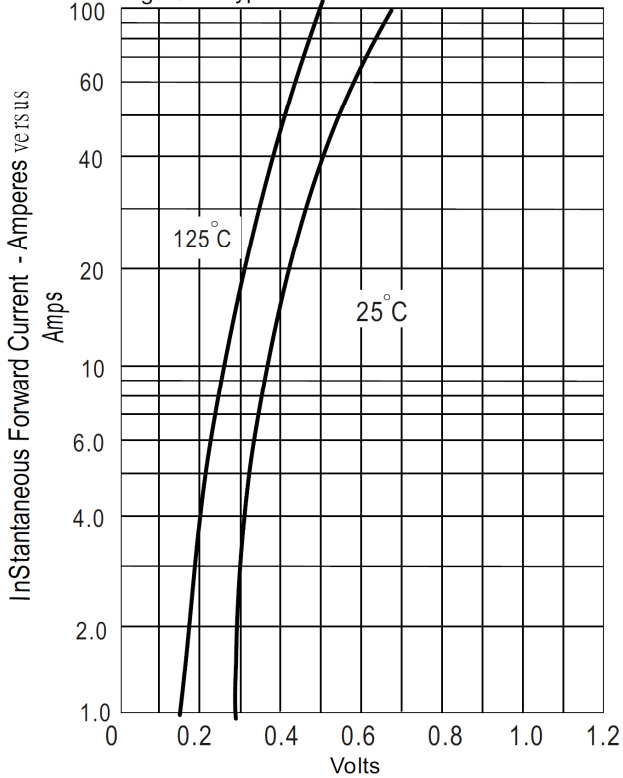
Electrical characteristics, at $T_j = 25\text{ }^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Conditions	1N5826 (R)	1N5827 (R)	1N5828 (R)	Unit
Diode forward voltage	V_F	$I_F = 15\text{ A}$, $T_j = 25\text{ }^\circ\text{C}$	0.44	0.47	0.5	V
Reverse current	I_R	$V_R = 20\text{ V}$, $T_j = 25\text{ }^\circ\text{C}$ $V_R = 20\text{ V}$, $T_j = 125\text{ }^\circ\text{C}$	10 250	10 250	10 250	mA

Thermal characteristics

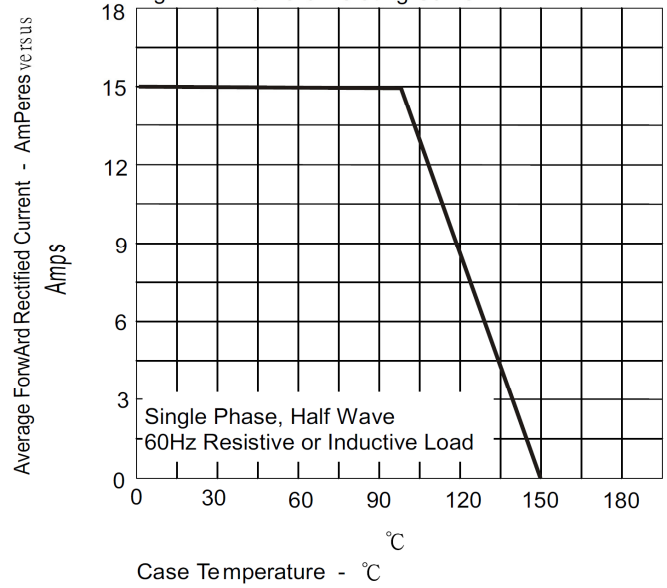
Parameter	Symbol	Conditions	1N5826 (R)	1N5827 (R)	1N5828 (R)	Unit
Thermal resistance, junction - case	R_{thJC}		1.8	1.8	1.8	$^\circ\text{C/W}$

Figure .1- Typical Forward Characteristics



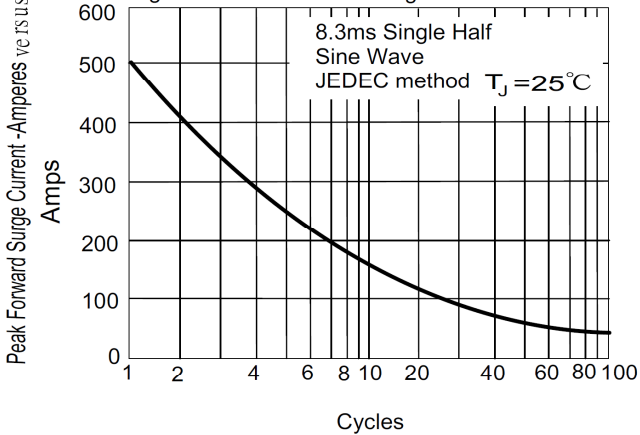
Instantaneous Forward Voltage - Volts

Figure .2- Forward Derating Curve



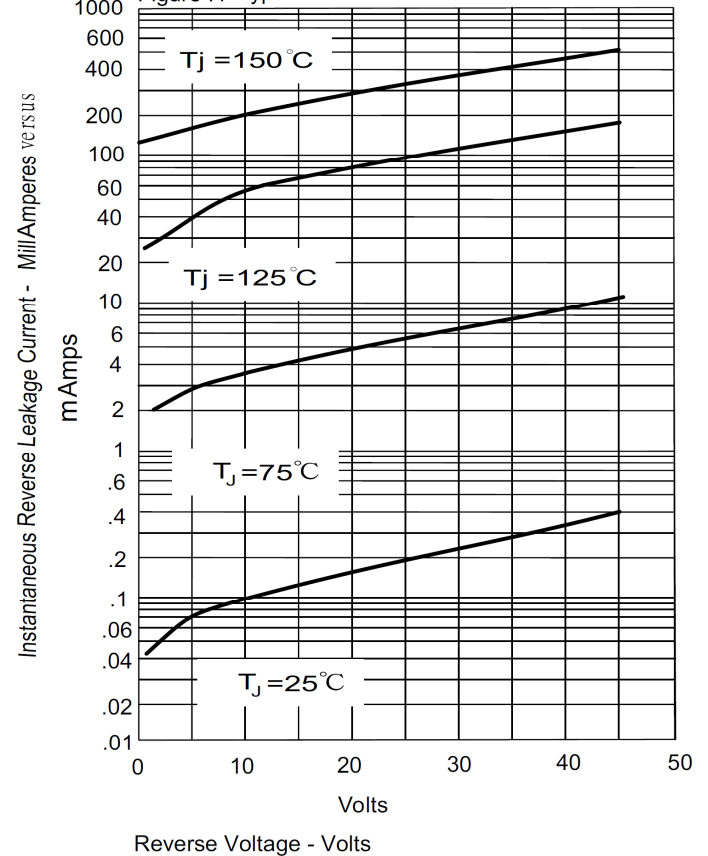
Case Temperature - °C

Figure.3- Peak Forward Surge Current



Number Of Cycles At 60Hz - Cycles

Figure .4- Typical Reverse Characteristics



Reverse Voltage - Volts