

Silicon Power Schottky Diode

 $V_{RRM} = 20\text{ V} - 40\text{ V}$
 $I_F = 25\text{ A}$

Features

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

DO-4 Package

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

Parameter	Symbol	Conditions	1N5829 (R)	1N5830 (R)	1N5831 (R)	Unit
Repetitive peak reverse voltage	V_{RRM}		20	25	35	V
RMS reverse voltage	V_{RMS}		14	17	25	V
DC blocking voltage	V_{DC}		20	25	35	V
Continuous forward current	I_F	$T_C \leq 100\text{ °C}$	25	25	25	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ °C}$, $t_p = 8.3\text{ ms}$	800	800	800	A
Operating temperature	T_j		-55 to 150	-55 to 150	-55 to 150	°C
Storage temperature	T_{stg}		-55 to 175	-55 to 175	-55 to 175	°C

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

Parameter	Symbol	Conditions	1N5829 (R)	1N5830 (R)	1N5831 (R)	Unit
Diode forward voltage	V_F	$I_F = 25\text{ A}$, $T_j = 25\text{ °C}$	0.58	0.58	0.58	V
Reverse current	I_R	$V_R = 20\text{ V}$, $T_j = 25\text{ °C}$	2	2	2	mA
		$V_R = 20\text{ V}$, $T_j = 125\text{ °C}$	250	250	250	

Thermal characteristics

Thermal resistance, junction - case	R_{thJC}		1.8	1.8	1.8	°C/W
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