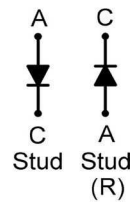


**Features**

- High Surge Capability
- Types up to 45 V  $V_{RRM}$

**Note:**

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



**DO-4 Package**



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

Parameter	Symbol	Conditions	SD41 (R)	SD4145 (R)	Unit
Repetitive peak reverse voltage	$V_{RRM}$		35	45	V
RMS reverse voltage	$V_{RMS}$		25	32	V
DC blocking voltage	$V_{DC}$		35	45	V
Continuous forward current	$I_F$	$T_C \leq 100\text{ }^\circ\text{C}$	30	30	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ }^\circ\text{C}$ , $t_p = 8.3\text{ ms}$	600	600	A
Operating temperature	$T_j$		-55 to 150	-55 to 150	$^\circ\text{C}$
Storage temperature	$T_{stg}$		-55 to 175	-55 to 175	$^\circ\text{C}$

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

Parameter	Symbol	Conditions	SD41 (R)	SD4145 (R)	Unit
Diode forward voltage	$V_F$	$I_F = 30\text{ A}$ , $T_j = 25\text{ }^\circ\text{C}$	0.68	0.68	V
Reverse current	$I_R$	$V_R = 35\text{ V}$ , $T_j = 25\text{ }^\circ\text{C}$ $V_R = 35\text{ V}$ , $T_j = 125\text{ }^\circ\text{C}$	1.5 25	1.5 25	mA

**Thermal characteristics**

Thermal resistance, junction - case	$R_{thJC}$		1.5	1.5	$^\circ\text{C/W}$
-------------------------------------	------------	--	-----	-----	--------------------

