



America Semiconductor

Silicon Standard Recovery Diode

1N3765 thru
1N3768R

$V_{RRM} = 50\text{ V} - 1000\text{ V}$

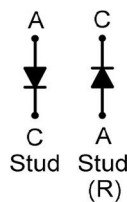
$I_F = 35\text{ A}$

Features

- High Surge Capability
- Types up to 1000 V 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

Parameter	Symbol	Conditions	1N3765 (R)	1N3766 (R)	1N3767 (R)	1N3768 (R)	Unit
Repetitive peak reverse voltage	V_{RRM}		700	800	900	1000	V
RMS reverse voltage	V_{RMS}		490	560	630	700	V
DC blocking voltage	V_{DC}		700	800	900	1000	V
Continuous forward current	I_F	$T_C \leq 140\text{ }^{\circ}\text{C}$	35	35	35	35	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ }^{\circ}\text{C}$, $t_p = 8.3\text{ ms}$	475	475	475	475	A
Operating temperature	T_j		-65 to 190	-65 to 190	-65 to 190	-65 to 190	$^{\circ}\text{C}$
Storage temperature	T_{stg}		-65 to 175	-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	1N3765 (R)	1N3766 (R)	1N3767 (R)	1N3768 (R)	Unit
Diode forward voltage	V_F	$I_F = 35\text{ A}$, $T_j = 25\text{ }^{\circ}\text{C}$	1.2	1.2	1.2	1.2	V
Reverse current	I_R	$V_R = 50\text{ V}$, $T_j = 25\text{ }^{\circ}\text{C}$	10	10	10	10	μA
		$V_R = 50\text{ V}$, $T_j = 140\text{ }^{\circ}\text{C}$	10	10	10	10	mA

Thermal characteristics

Thermal resistance, junction - case	R_{thJC}		0.25	0.25	0.25	0.25	$^{\circ}\text{C/W}$
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Figure .1-Typical Forward Characteristics

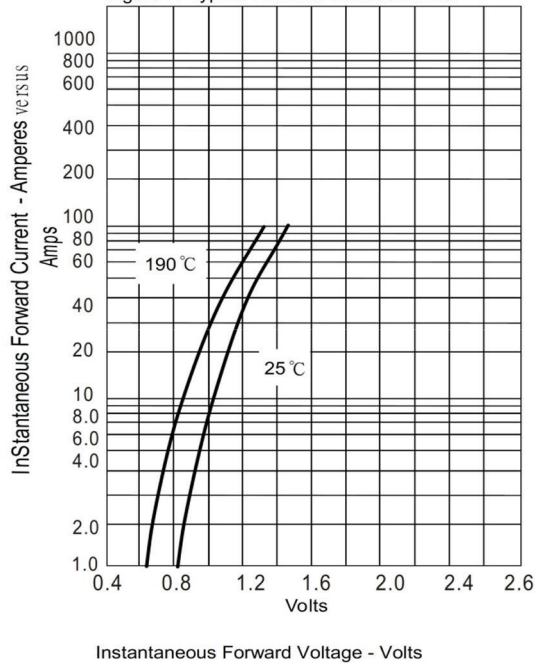
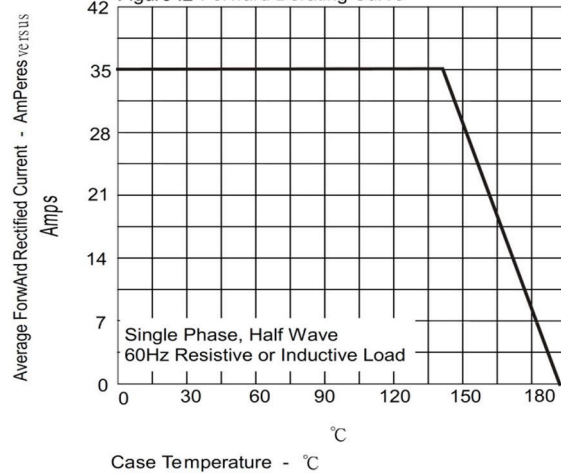


Figure .2-Forward Derating Curve



Instantaneous Forward Current - Amperes versus Amps

Figure .3- Peak Forward Surge Current

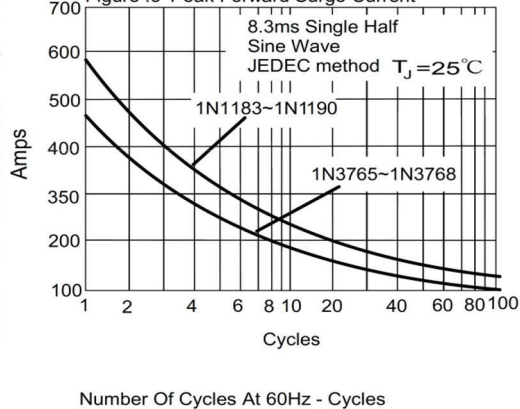


Figure .4-Typical Reverse Characteristics

