Silicon Standard Recovery Diode

V_{RRM} = 50 V - 1000 V
I_F = 35 A

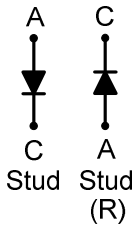
Features

- High Surge Capability
- Types up to 1000 V V_{RRM}

DO-5 Package

Note:

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



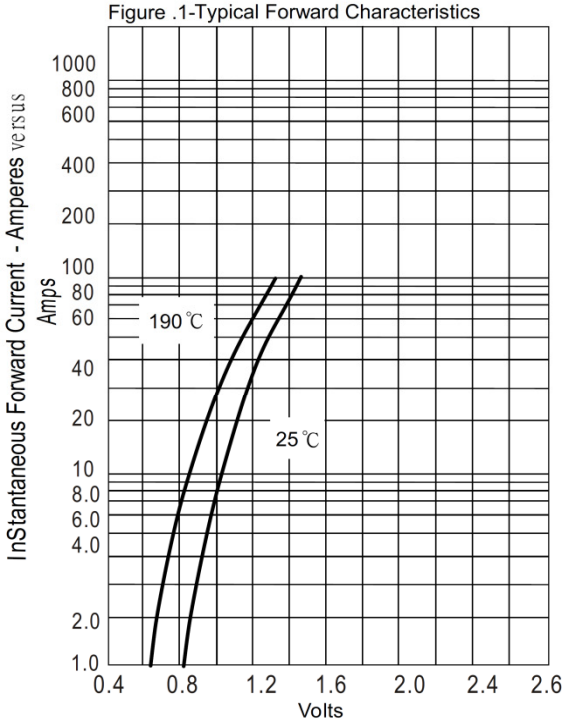
Maximum ratings, at T_j = 25 °C, unless otherwise specified

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	$T_C \leq 140$ °C	35	35	35	35	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	T_C = 25 °C, t_p = 8.3 ms	475	475	475	475	A
Operating temperature	T_j		-65 to 190	-65 to 190	-65 to 190	-65 to 190	°C
Storage temperature	T_{stg}		-65 to 175	-65 to 175	-65 to 175	-65 to 175	°C

Electrical characteristics, at Tj = 25 °C, unless otherwise specified

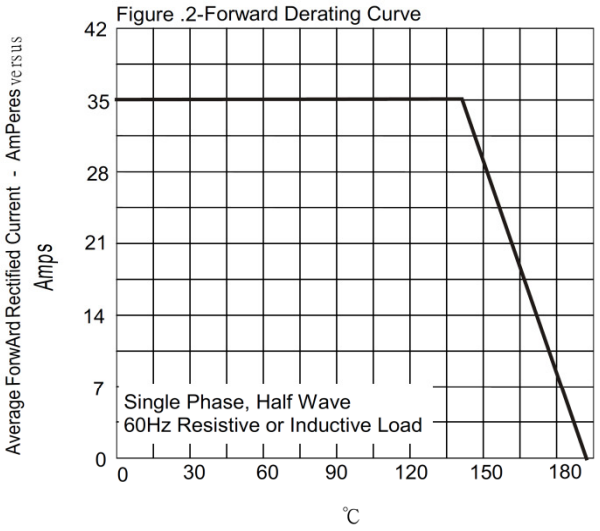
Parameter	Symbol	Conditions	1N3765 (R)	1N3766 (R)	1N3767 (R)	1N3768 (R)	Unit
Diode forward voltage	V_F	I_F = 35 A, T_j = 25 °C	1.2	1.2	1.2	1.2	V
Reverse current	I_R	V_R = 50 V, T_j = 25 °C	10	10	10	10	µA
		V_R = 50 V, T_j = 140 °C	10	10	10	10	mA
Thermal characteristics							
Thermal resistance, junction - case	R_{thJC}		0.25	0.25	0.25	0.25	°C/W

Figure .1-Typical Forward Characteristics



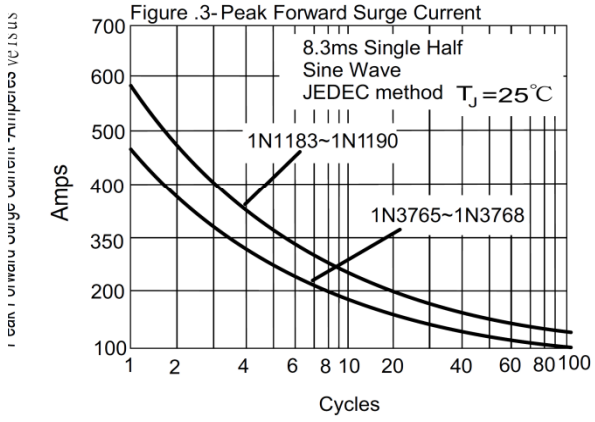
Instantaneous Forward Voltage - Volts

Figure .2-Forward Derating Curve



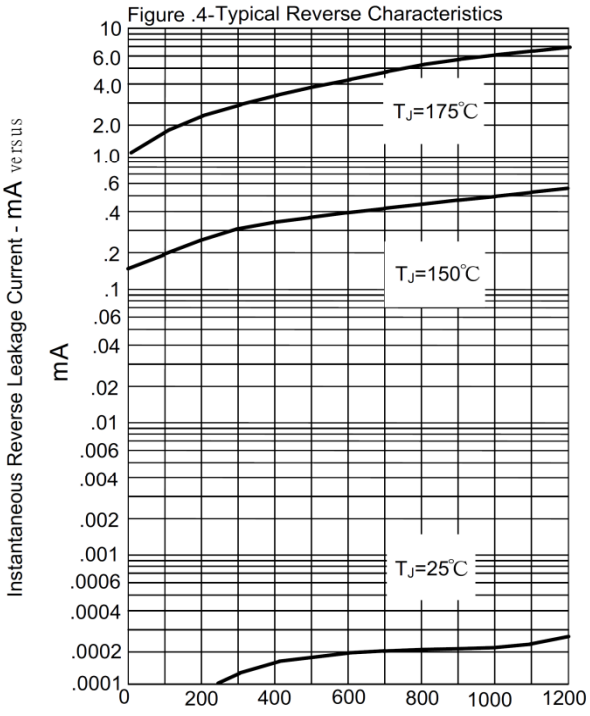
Case Temperature - ℃

Figure .3- Peak Forward Surge Current



Number Of Cycles At 60Hz - Cycles

Figure .4-Typical Reverse Characteristics



Reverse Voltage - Volts