

Silicon Standard Recovery Diode

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

Features

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

DO-5 Package


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

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

Parameter	Symbol	Conditions	1N3765 (R)	1N3766 (R)	1N3767 (R)	1N3768 (R)	Unit
Diode forward voltage	V_F	$I_F = 35\text{ A}$, $T_j = 25\text{ °C}$	1.2	1.2	1.2	1.2	V
Reverse current	I_R	$V_R = 50\text{ V}$, $T_j = 25\text{ °C}$	10	10	10	10	μA
		$V_R = 50\text{ V}$, $T_j = 140\text{ °C}$	10	10	10	10	mA

Thermal characteristics

Parameter	Symbol	Conditions	1N3765 (R)	1N3766 (R)	1N3767 (R)	1N3768 (R)	Unit
Thermal resistance, junction - case	R_{thJC}		0.25	0.25	0.25	0.25	°C/W

Figure .1-Typical Forward Characteristics

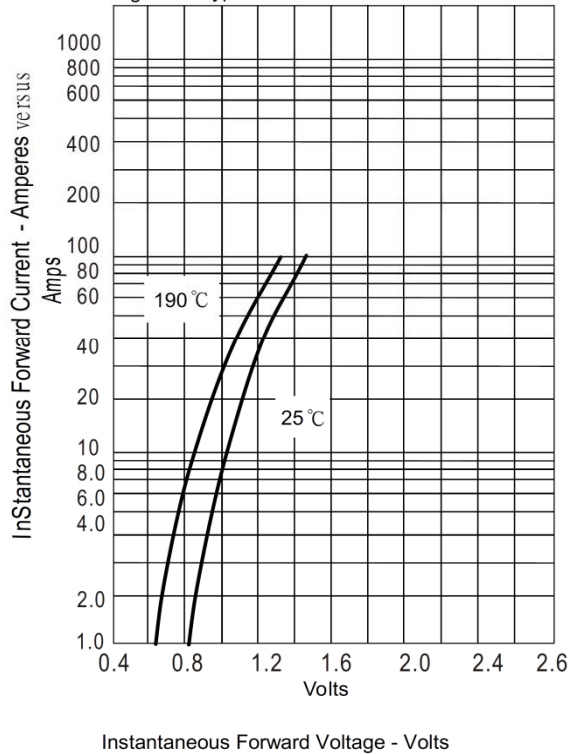


Figure .2-Forward Derating Curve

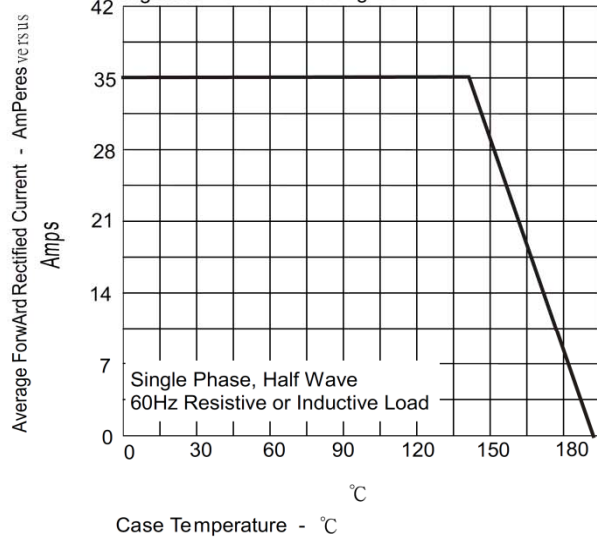


Figure .4-Typical Reverse Characteristics

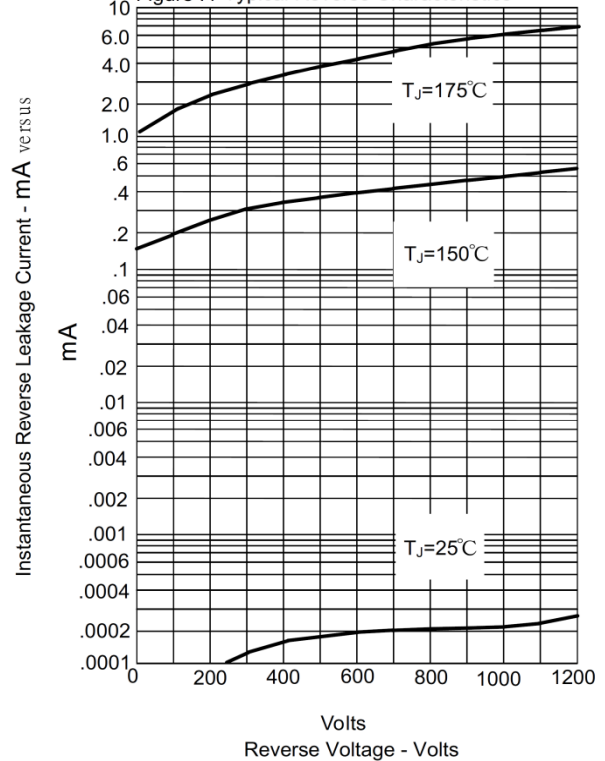


Figure .3-Peak Forward Surge Current

