

# Silicon Standard Recovery Diode

 $V_{RRM} = 50\text{ V} - 1200\text{ V}$ 
 $I_F = 12\text{ A}$ 

## Features

- High Surge Capability
- Types up to 1200 V  $V_{RRM}$

**DO-4 Package**

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

Parameter	Symbol	Conditions	S16K (R)	S16M (R)	S16Q (R)	Unit
Repetitive peak reverse voltage	$V_{RRM}$		800	1000	1200	V
RMS reverse voltage	$V_{RMS}$		560	700	840	V
DC blocking voltage	$V_{DC}$		800	1000	1200	V
Continuous forward current	$I_F$	$T_C \leq 140\text{ °C}$	16	16	16	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25\text{ °C}$ , $t_p = 8.3\text{ ms}$	370	370	370	A
Operating temperature	$T_j$		-65 to 175	-65 to 175	-65 to 175	°C
Storage temperature	$T_{stg}$		-65 to 200	-65 to 200	-65 to 200	°C

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

Parameter	Symbol	Conditions	S16K (R)	S16M (R)	S16Q (R)	Unit
Diode forward voltage	$V_F$	$I_F = 16\text{ A}$ , $T_j = 25\text{ °C}$	1.1	1.1	1.1	V
Reverse current	$I_R$	$V_R = 50\text{ V}$ , $T_j = 25\text{ °C}$	10	10	10	$\mu\text{A}$
		$V_R = 50\text{ V}$ , $T_j = 175\text{ °C}$	12	12	12	mA

## Thermal characteristics

Parameter	Symbol	Conditions	S16K (R)	S16M (R)	S16Q (R)	Unit
Thermal resistance, junction - case	$R_{thJC}$		2.50	2.50	2.50	°C/W

Figure .1-Typical Forward Characteristics

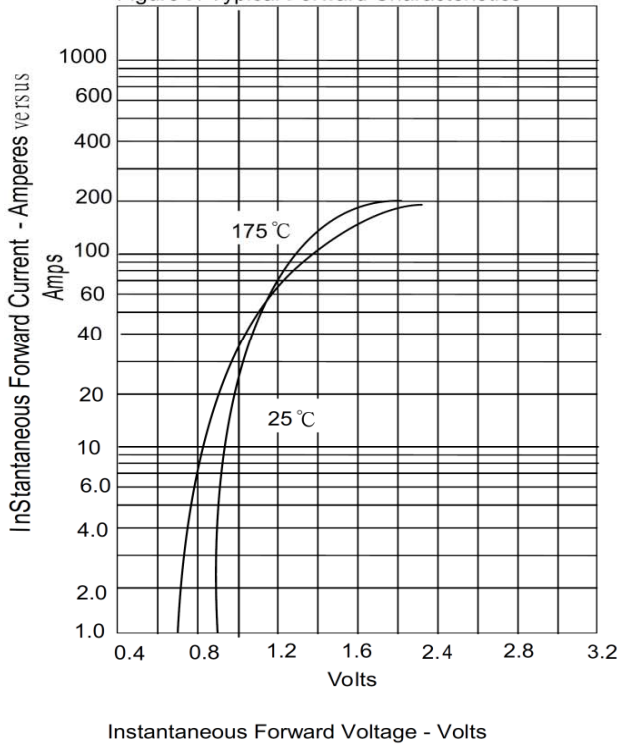


Figure .2-Forward Derating Curve

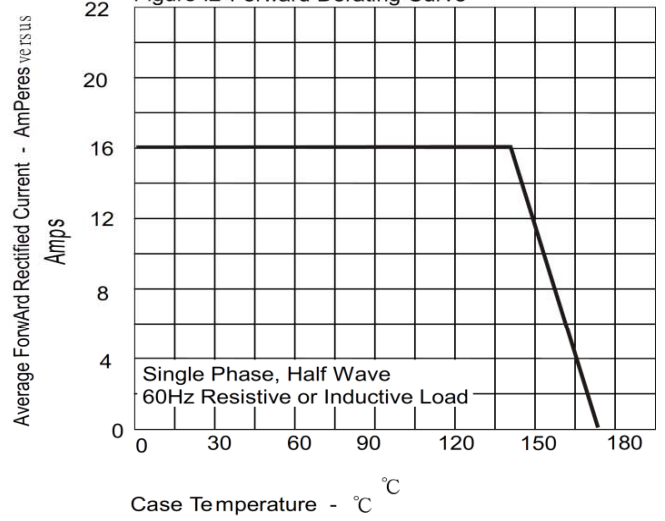


Figure .4-Typical Reverse Characteristics

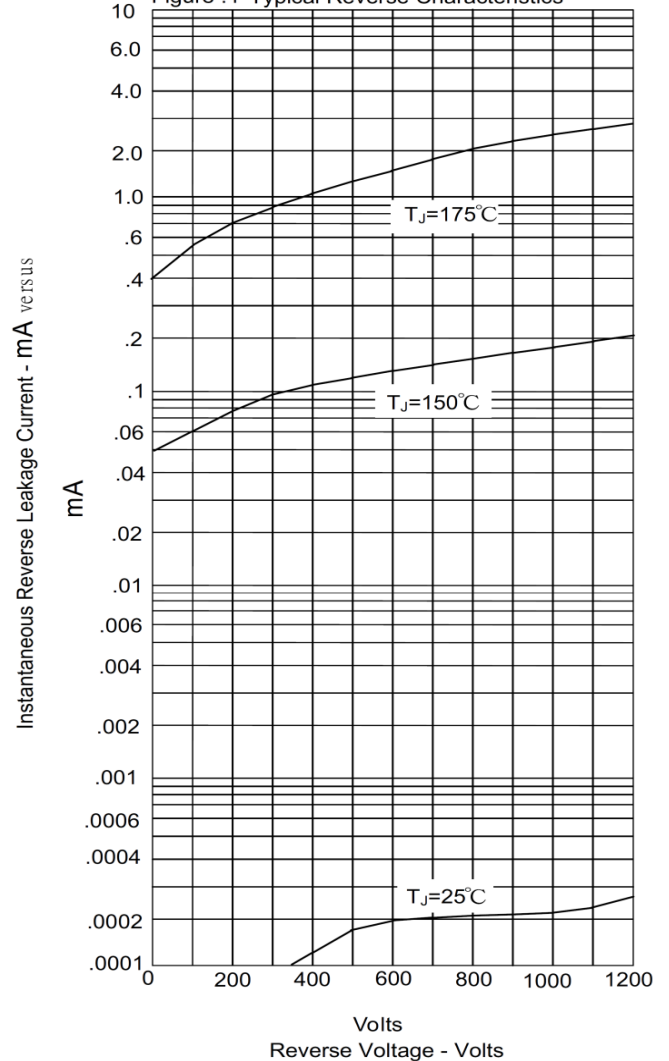


Figure .3-Peak Forward Surge Current

