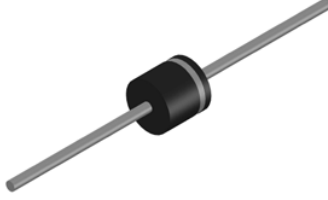



<p>R7</p>  	<p>Features</p> <ul style="list-style-type: none"> Metal silicon junction, majority carrier conduction Highly stable oxide passivated junction Guardring for stress protection Low forward voltage drop. High current capability High surge capability High reliability Ideal for solar panel PV application such as By-Pass diode 												
<p>Primary characteristics</p>	<p>Mechanical data</p>												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">$I_{F(AV)}$</td> <td style="text-align: center;">15A</td> </tr> <tr> <td>V_{RRM}</td> <td style="text-align: center;">200V</td> </tr> <tr> <td>I_{FSM}</td> <td style="text-align: center;">300A</td> </tr> <tr> <td>I_{RM}</td> <td style="text-align: center;">0.05mA</td> </tr> <tr> <td>V_{FM}</td> <td style="text-align: center;">0.85V</td> </tr> <tr> <td>$T_J \text{ max.}$</td> <td style="text-align: center;">200 °C</td> </tr> </table>	$I_{F(AV)}$	15A	V_{RRM}	200V	I_{FSM}	300A	I_{RM}	0.05mA	V_{FM}	0.85V	$T_J \text{ max.}$	200 °C	<ul style="list-style-type: none"> Case: R-7 Axial-Leaded, Molded Plastic Plastic package has Underwriters Laboratory Flammability Classification 94V-0 Terminals: All Terminal Leads are Readily Solderable Lead Temperature for Soldering Purposes: 260°C Max. for 10 Seconds Weight : 2.10 grams
$I_{F(AV)}$	15A												
V_{RRM}	200V												
I_{FSM}	300A												
I_{RM}	0.05mA												
V_{FM}	0.85V												
$T_J \text{ max.}$	200 °C												
<p>Maximum rating (Ta=25°C unless otherwise noted)</p>													
Parameter	Symbol	SPSL15200	Unit										
Maximum Repetitive Reverse Voltage	V_{RRM}	200	V										
Maximum RMS Voltage	V_{RMS}	140	V										
Maximum DC Blocking Voltage	V_{DC}	200	V										
Maximum average forward rectified current (see Fig. 1)	$I_{(AV)}$	15	A										
Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave	I_{FSM}	300	A										
Maximum Instantaneous Forward Voltage@ 15A (Note 1)	V_F	0.85	v										
Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage (Note1)	$T_a = 25^\circ\text{C}$	0.05	mA										
	$T_a = 100^\circ\text{C}$	5											
Typical Thermal Resistance (Note 2)	$R_{\theta J-A}$	12	°C/W										
Storage Temperature Range	T_{STG}	-50 ~ +175	°C										
Operating Junction Temperature	T_J	-50~ +175	°C										
In DC Forward Mode	T_J	200max	°C										

Notes: 1. Pulse test with PW=300 usec, 1% duty cycle.

2. Leads are kept at ambient temperature at a distance of 10 mm from case.

Electrical Characteristics <small>(Pulse test with PW=300 usec, 1% duty cycle)</small>									
Parameter	Test Condition		Symbols	Min.	Typ.	Max.	Units		
Forward Voltage Drop	$T_j=25^{\circ}\text{C}$	$I_F = 5\text{A}$	V_F	-	0.74	-	Volts		
	$T_j=125^{\circ}\text{C}$			-	0.61	-	Volts		
	$T_j=175^{\circ}\text{C}$			-	0.54	-	Volts		
	Forward Voltage Drop	$T_j=25^{\circ}\text{C}$	$I_F = 8\text{A}$	V_F	-	0.77	-	Volts	
		$T_j=125^{\circ}\text{C}$			-	0.64	-	Volts	
		$T_j=175^{\circ}\text{C}$			-	0.58	-	Volts	
		Forward Voltage Drop	$T_j=25^{\circ}\text{C}$	$I_F = 10\text{A}$	V_F	-	0.79	-	Volts
			$T_j=125^{\circ}\text{C}$			-	0.69	-	Volts
			$T_j=175^{\circ}\text{C}$			-	0.62	-	Volts
	$T_j=25^{\circ}\text{C}$		$I_F = 15\text{A}$			V_F	-	0.82	0.85
$T_j=125^{\circ}\text{C}$	-	0.71		-	Volts				
Reverse Leakage Current	$T_j=25^{\circ}\text{C}$	$V_R=V_{RRM}$	I_R	-	0.05	0.5	mA		
	$T_j=100^{\circ}\text{C}$			-	-	50.0	mA		

Typical characteristics

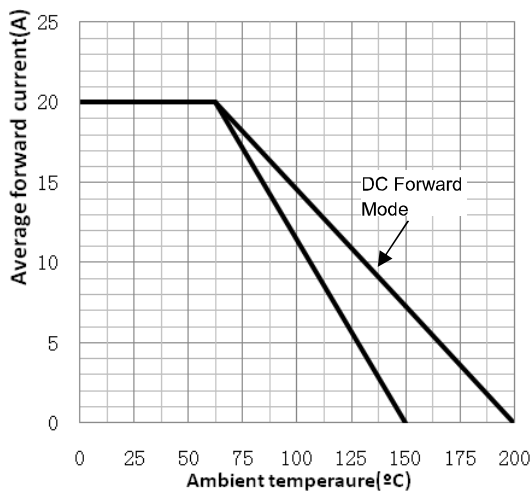


Figure 1. Forward Current Derating Curve

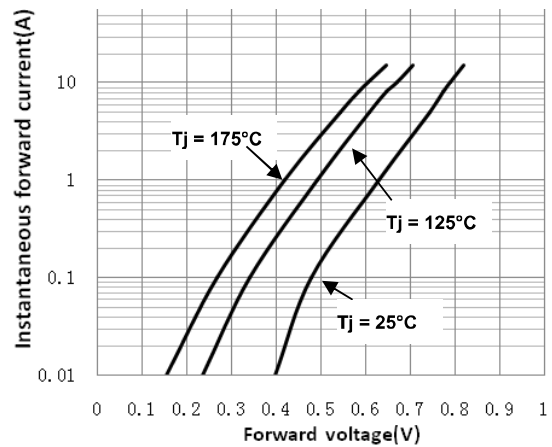


Figure 2. Forward Voltage Characteristics

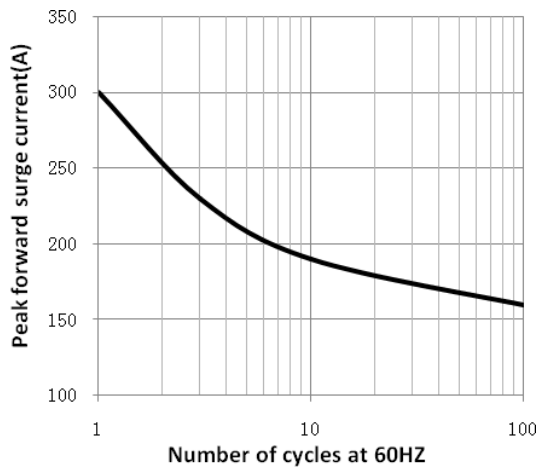


Figure 3. Non-Repetitive Surge Current

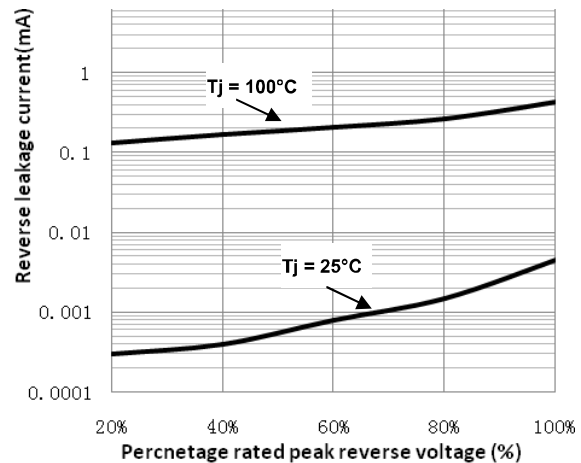
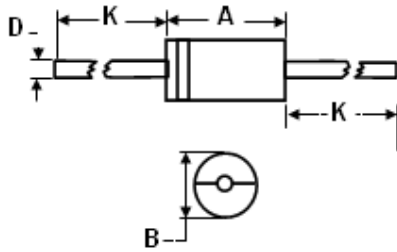


Figure 4. Reverse current characteristics

Package outline dimensions



Dim.	Inches		Millimeters	
	Min.	Max.	Min.	Max.
A	0.291	0.299	7.4	7.6
B	0.311	0.319	7.9	8.1
D	0.055	0.063	1.4	1.6
K	1.000		25.4	