

Data Sheet 3153, Rev. -
Maximum Rating

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	80	123SPC080/A
			100	123SPC100/A
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle, rectangular wave form	120	A
Max. Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, Sine pulse	1650	A
Non-Repetitive Avalanche Energy	E_{AS}	$T_J = 25\text{ }^\circ\text{C}$, $I_{AS} = 0.75\text{ A}$, $L = 40\text{ mH}$	11.25	mJ
Repetitive Avalanche Current	I_{AR}	I_{AS} decay linearly to 0 in 1 μs f limited by T_J max $V_A = 1.5 V_R$	0.75	A

Electrical Characteristics:

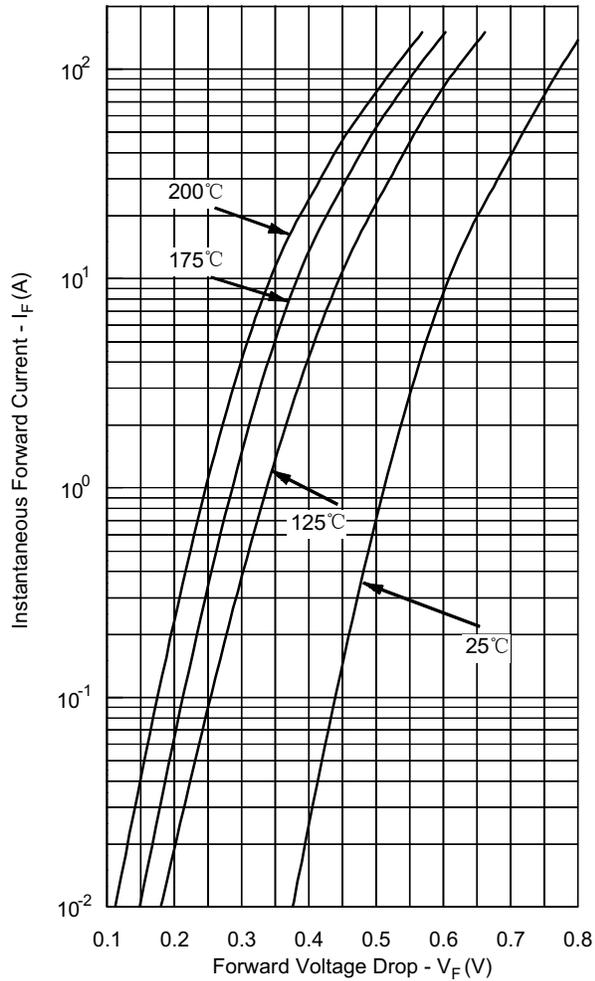
Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	V_{F1}	@ 120 A, Pulse, $T_J = 25\text{ }^\circ\text{C}$	0.87	V
	V_{F2}	@ 120 A, Pulse, $T_J = 125\text{ }^\circ\text{C}$	0.72	V
Max. Reverse Current	I_{R1}	@ $V_R = \text{rated } V_R$, Pulse, $T_J = 25\text{ }^\circ\text{C}$	2.0	mA
	I_{R2}	@ $V_R = \text{rated } V_R$, Pulse, $T_J = 125\text{ }^\circ\text{C}$	48	mA
Max. Junction Capacitance	C_T	@ $V_R = 5\text{ V}$, $T_C = 25\text{ }^\circ\text{C}$ $f_{SIG} = 1\text{ MHz}$, $V_{SIG} = 50\text{ mV (p-p)}$	3000	pF

Thermal-Mechanical Specifications:

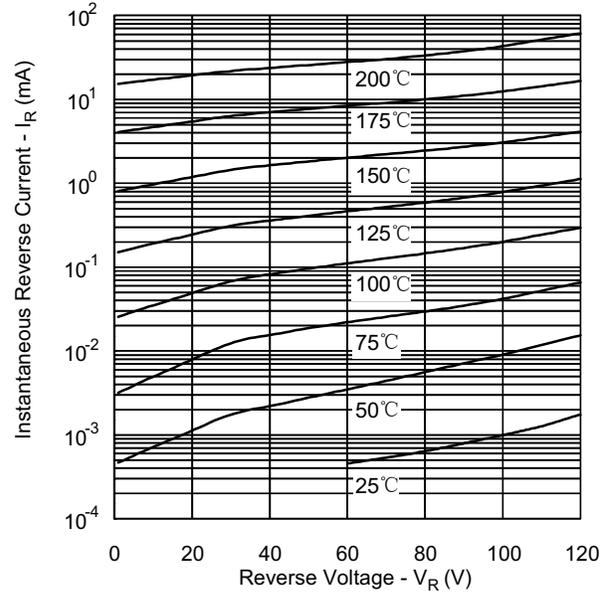
Characteristics	Symbol	Condition	Specification	Units
Max. Junction Temperature	T_J	-	-55 to +175	$^\circ\text{C}$
Max. Storage Temperature	T_{stg}	-	-55 to +175	$^\circ\text{C}$
Max. Thermal Resistance Junction to Case	$R_{\theta JC}$	DC operation	0.20	$^\circ\text{C/W}$
Case Style	SPD-3/A			

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Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance

