



Q-SSC08120-T

1200V Silicon Carbide Schottky Diode

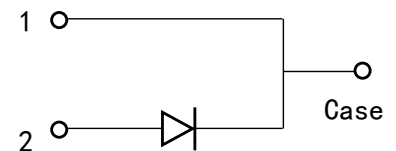
Features

- Negligible reverse recovery
- High-speed switching
- Positive Temperature Coefficient
- Temperature-Independent Switching
- Pb-free / RoHS compliant

V_{RRM}	1200V
I_F	8A (TC=155°C)
Q_C	31nC

Benefits

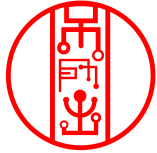
- Higher frequency
- Low heat dissipation requirements
- Reduce size and cost of the system
- High-reliability



Applications

- Switch mode power supply
- Solar inverter
- Data Center
- Uninterruptible power supply

Marking	Package
Q-SSC08120-T	TO-220-2



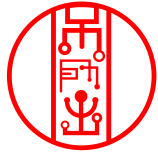
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Maximum Ratings (T_c=25°C unless otherwise noted)

Symbol	Parameter		Value	Unit	Note
V _{RRM}	Repetitive peak reverse voltage		1200	V	
I _F	Continuous forward current	T _c =155°C	8	A	
I _{FSM}	Non-repetitive forward surge current	T _c =25°C, t _p =10ms, Half sine pulse	65	A	
		T _c =110°C, t _p =10ms, Half sine pulse	50	A	
I _{FRM}	Repetitive Peak Forward Surge Current	T _c =25°C, t _p =10ms, Half sine pulse	38	A	
∫ i ² dt	i ² t value	T _c =25°C, t _p =10ms	21	A ² S	
		T _c =110°C, t _p =10ms	13	A ² S	
T _j , T _{stg}	Operating and Storage Temperature		-55 to +175	°C	

Electrical Characteristics (T_c=25°C unless otherwise noted)

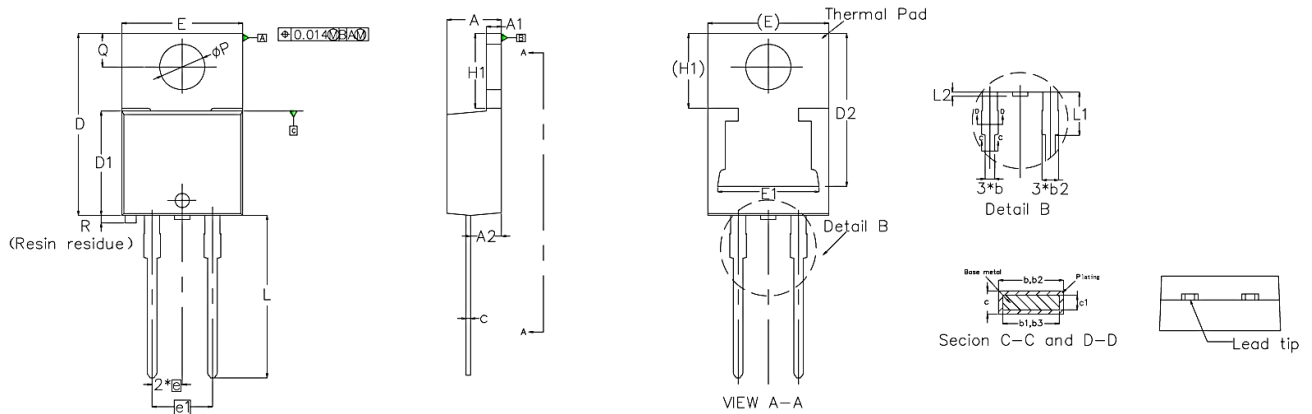
Symbol	Parameter	Test Conditions	Value			Unit	Note
			Min.	Typ.	Max.		
V _{DC}	DC blocking voltage		1200	-	-	V	
V _F	Forward voltage	I _F =4A	-	1.27	-	V	
		I _F =8A, T _c =25°C	-	1.58	1.7	V	
		I _F =8A, T _c =175°C		2.3		V	
I _R	Reverse current	V _R =1200V, T _c =25°C	-	2	120	uA	
		V _R =1200V, T _c =175°C		12		uA	



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Package Dimensions

To-220-2



SYMBOL	MILLIMETERS			NOTES		SYMBOL	MILLIMETERS			NOTES
	Normal	MIN.	MAX.				Normal	MIN.	MAX.	
A	4.55	4.44	4.65			E1	8.57	8.25	8.89	
A1	1.27	1.14	1.39			e	2.54	2.41	2.67	
A2	2.60	2.54	2.79			e1	5.08	4.95	5.20	
b	0.85	0.69	0.94			H1	6.20	6.09	6.40	
b1	0.83	0.38	0.97			L	13.60	13.52	14.00	
b2	1.33	1.20	1.45			L1	3.60	3.56	3.80	
b3	1.33	1.20	1.45			L2	—	0	0.35	
c	0.50	0.36	0.56			ϕP	3.80	3.70	3.91	
c1	0.48	0.36	0.56			Q	2.80	2.62	2.87	
D	15.25	14.95	15.32			R			0.2	
D1	8.75	8.50	8.89							
D2	12.85	12.20	13.30							
E	10.18	10.11	10.40							