

Silicon Carbide Schottky Diode, 650V / 10A

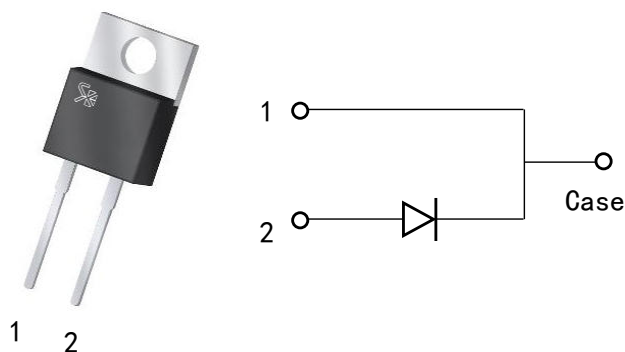
Features

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

V_{RRM}	650V
I_F	10A (TC=153°C)

Applications

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



Benefits

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

Marking	Package
SSC1065-T	TO-220-2

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

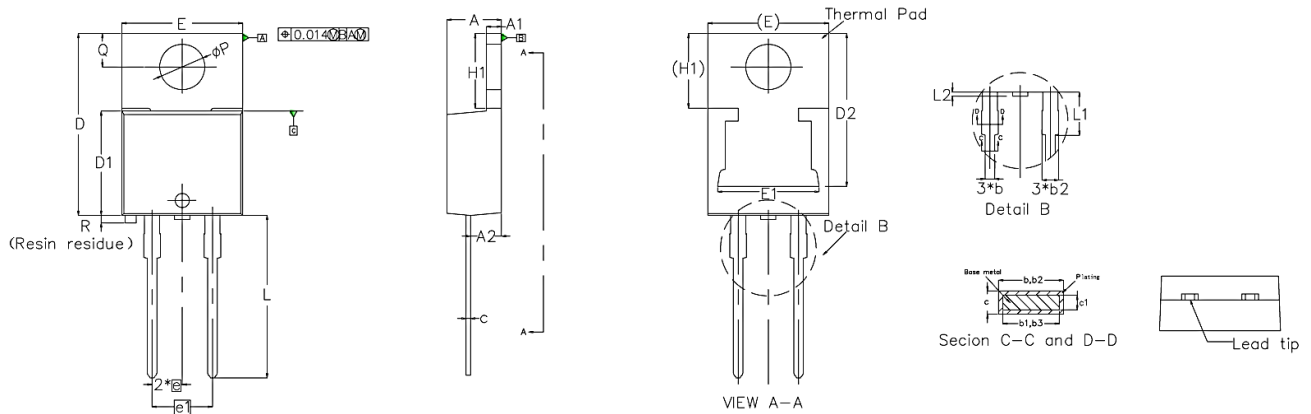
Symbol	Parameter		Value	Unit	Note
V_{RRM}	Repetitive peak reverse voltage		650	V	
I_F	Continuous forward current	Tc=153°C	10	A	
I_{FSM}	Non-repetitive forward surge current	Tc=25°C, t _p =10ms, Half sine pulse	96	A	
I_{FRM}	Repetitive Peak Forward Surge Current	Tc=25°C, t _p =10ms, Half sine pulse	85	A	

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

Symbol	Parameter	Test Conditions	Value			Unit	Note
			Min.	Typ.	Max.		
V_{DC}	DC blocking voltage	$I_R=50\mu A$	650	-	-	V	
V_F	Forward voltage	$I_F=5A$	-	1.17	-	V	
		$I_F=10A$	-	1.38	1.6	V	
I_R	Reverse current	$V_R=650V$, Tc=25°C	-	5	60	μA	

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							