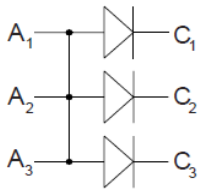
SS150TA60110, SS150TC60110, SS150TI60110

Silicon Carbide Schottky Diode

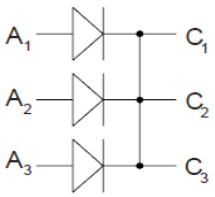
V_{RRM} = 600 V
$I_{F(AVG)}$ = 10 A
C_J = 120 pF

Part Number	V_{RRM} (V)	$I_{F(AVG)}$ (A)	Configuration
SS150TA60110	600	10	Triple Common Anode
SS150TC60110	600	10	Triple Common Cathode
SS150TI60110	600	10	Triple Independent

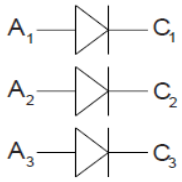
Triple Anode (TA)



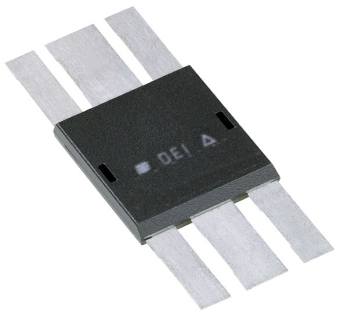
Triple Cathode (TC)



Triple Independent (TI)



A = Anode C = Cathode



Symbol	Parameter per diode	Test Conditions	Maximum Ratings	
V_{RRM}	Repetitive Peak Reverse Voltage		600	V
V_{RSM}	Repetitive Surge Reverse Voltage		600	V
V_{DC}	DC Blocking Voltage		600	V
$I_{F(AVG)}$	Average Forward Current	T_J = 175°C	10	A
I_{FRM}	Repetitive Peak Forward Surge Current	T_C = 25°C, t_P = 10 ms Half Sine Wave	67	A
I_{FSM}	Non-Repetitive Peak Forward Surge Current	T_C = 25°C, t_P = 10 µs Pulse	250	A
T_{VJ}	Operating Virtual Junction Temperature		-55 to +175	°C
T_{STG}	Storage Temperature		-55 to +175	°C
P_{TOT}	T_C = 25 °C (30 W/ per diode)		90	W

Features

- 600 V SiC Schottky Diode
- Surface Mount Package
- Zero Reverse Recovery
- Zero Forward Recovery
- High Frequency Operation
- Temperature Independent Behavior
- Positive Temperature Coefficient for V_F

Applications

- MHz Switch Mode Power Supplies
- High Frequency Converters
- Resonant Converters
- Rectifier Circuits

Symbol	Parameter	Test Conditions	Characteristic Values		
T_J = 25°C unless otherwise specified			Typ.	Max.	Units
V_F	Forward Voltage	I_F = 5 A, T_J = 25°C T_J = 175°C	1.7 2.2	2 2.5	V
I_R	Reverse Current	V_R = 600 V, T_J = 25°C T_J = 175°C	10 20	50 200	µA
C_J	Junction Capacitance	f = 1 MHz, V_R = 0 V V_R = 200 V V_R = 600 V	600 130 120		pF
Q_C	Capacitive Charge	V_R = 600 V	72		nC
R_{THJC}	Thermal Resistance		1.7		°C/W
T_L	Lead Soldering Temperature	1.6 mm (0.063 in) from case for 10 s	300		°C
Isolation	Pin to Substrate Pin to Pin		>1800 >1500		V_{RMS}
Weight			2		g

Fig. 1

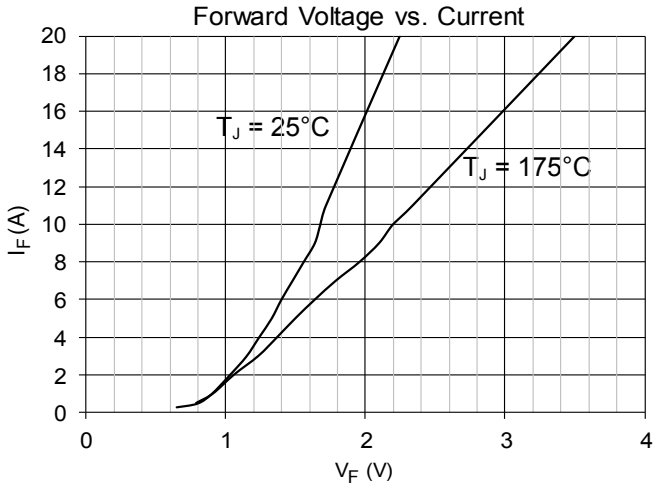


Fig. 2

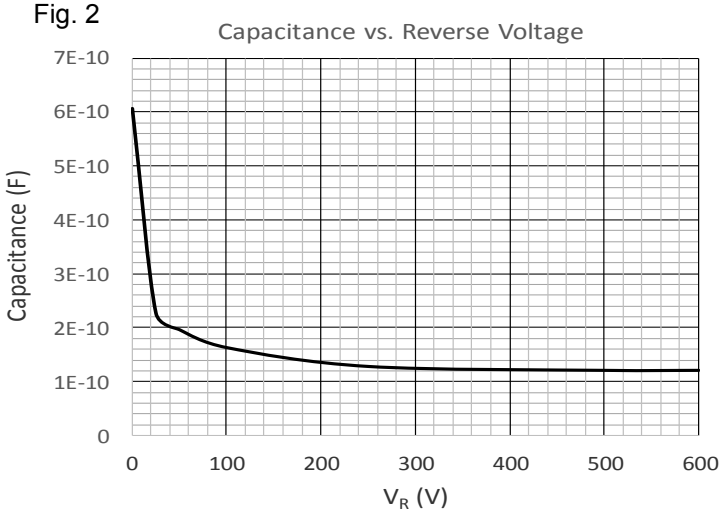


Fig. 3

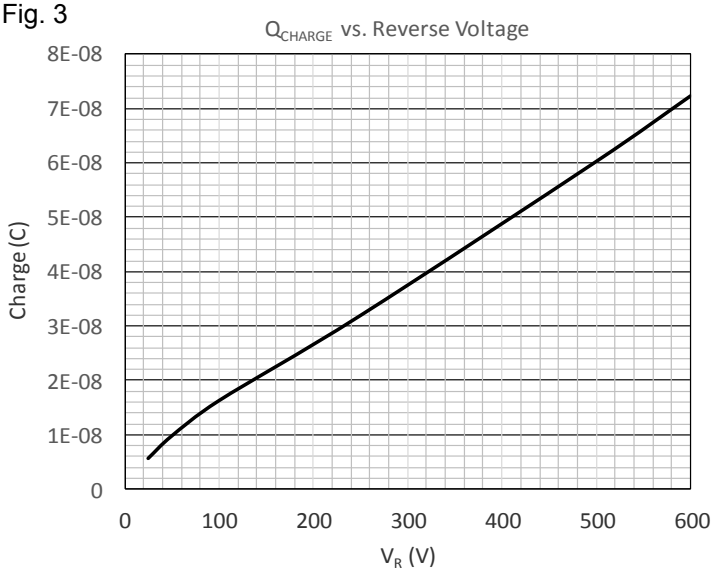


Fig. 4

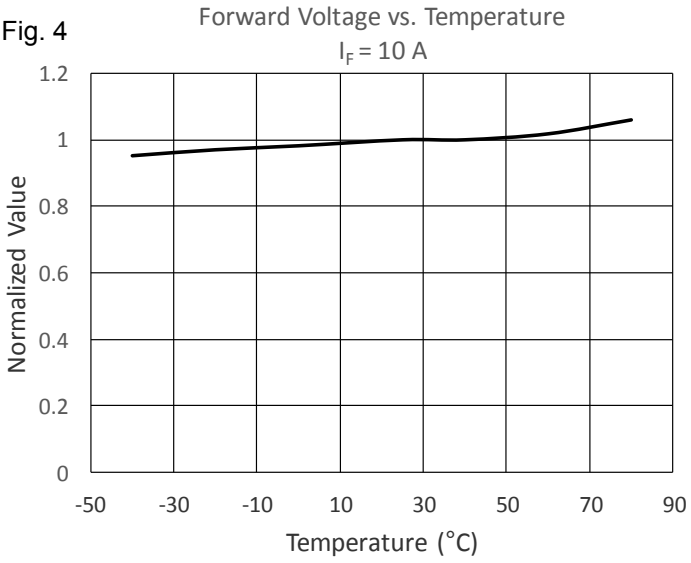


Fig. 5

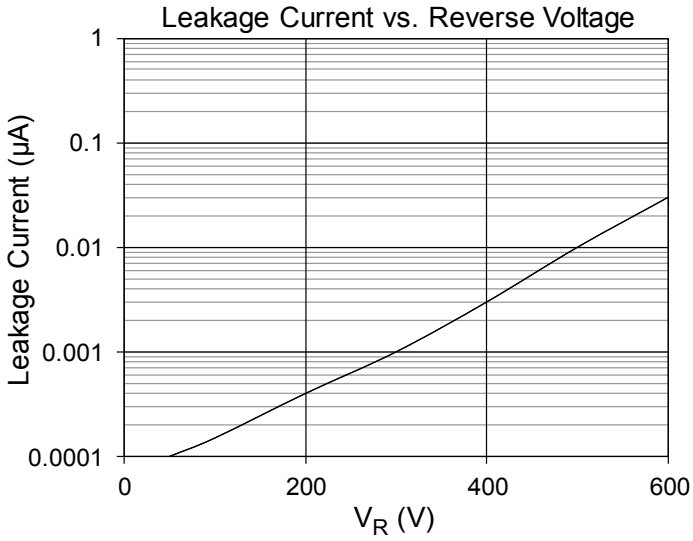


Fig. 6

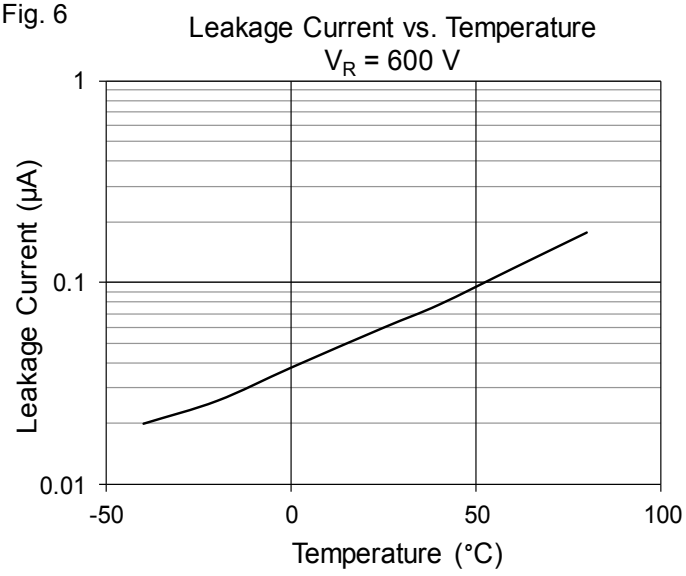
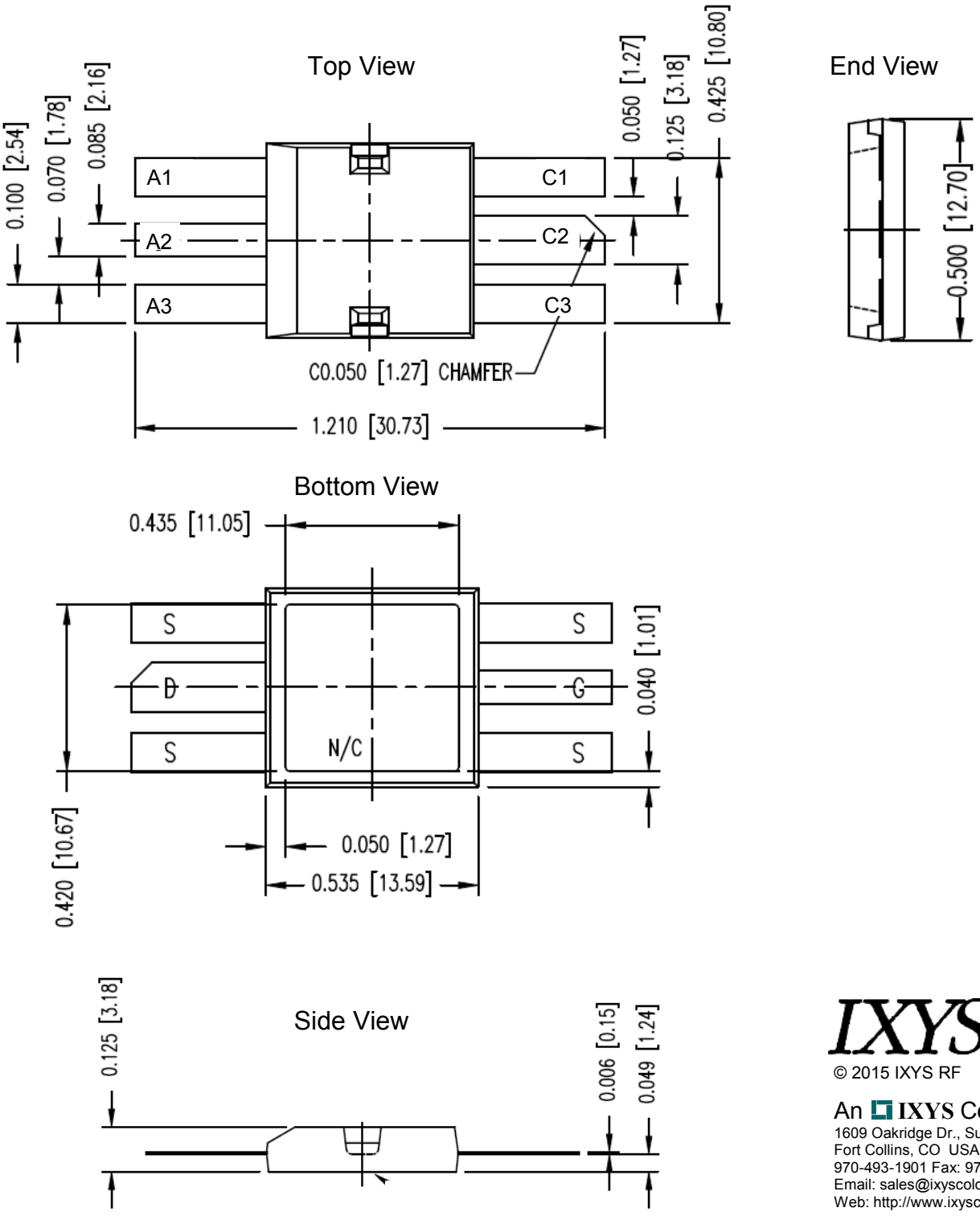


Fig. 7 Package Diagram



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DCB – Direct Copper Bond under Nickel plate on an Aluminum Nitride substrate, electrically isolated from any pin.