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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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SS275TA12205, SS275TC12205, SS275TI12205

Silicon Carbide Schottky Diode

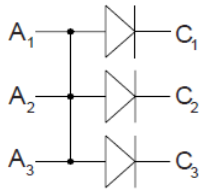
$$V_{RRM} = 1200 \text{ V}$$

$$I_{F(AVG)} = 5 \text{ A}$$

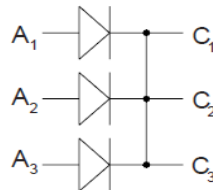
$$C_J = 90 \text{ pF}$$

Part Number	V_{RRM} (V)	$I_{F(AVG)}$ (A)	Configuration
SS275TA12205	1200	5	Triple Common Anode
SS275TC12205	1200	5	Triple Common Cathode
SS275TI12205	1200	5	Triple Independent

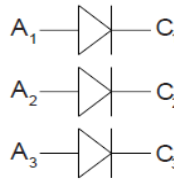
Triple Anode (TA)



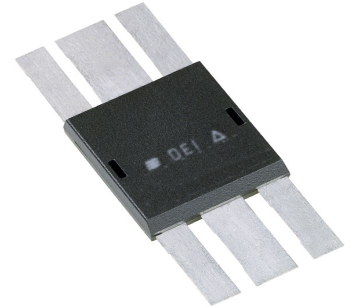
Triple Cathode (TC)



Triple Independent (TI)



A = Anode C = Cathode



Symbol Parameter per diode Test Conditions Maximum Ratings

Symbol	Parameter per diode	Test Conditions	Maximum Ratings
V_{RRM}	Repetitive Peak Reverse Voltage		1200 V
V_{RSM}	Repetitive Surge Reverse Voltage		1200 V
V_{DC}	DC Blocking Voltage		1200 V
$I_{F(AVG)}$	Average Forward Current	$T_J = 175^\circ\text{C}$	5 A
I_{FRM}	Repetitive Peak Forward Surge Current	$T_C = 25^\circ\text{C}$, $t_p = 8 \text{ ms}$ Half Sine Wave	30 A
I_{FSM}	Non-Repetitive Peak Forward Surge Current	$T_C = 25^\circ\text{C}$, $t_p = 10 \mu\text{s}$ Pulse	100 A
T_{VJ}	Operating Virtual Junction Temperature		-55 to +175 °C
T_{STG}	Storage Temperature		-55 to +175 °C
P_{TOT}	$T_C = 25^\circ\text{C}$ (33.3 W per diode)		100 W

Features

- 1200 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 per diode Test Conditions Characteristic Values

T _J = 25°C unless otherwise specified			Typ.	Max.	Units
V_F	Forward Voltage	$I_F = 5 \text{ A}$, $T_J = 25^\circ\text{C}$ $T_J = 175^\circ\text{C}$	1.5 2.5	1.8 3	V
I_R	Reverse Current	$V_R = 1200 \text{ V}$, $T_J = 25^\circ\text{C}$ $T_J = 175^\circ\text{C}$	50 100	200 1000	μA
C_J	Junction Capacitance	$f = 1 \text{ MHz}$, $V_R = 0 \text{ V}$ $V_R = 200 \text{ V}$ $V_R = 1200 \text{ V}$	575 120 90		pF
Q_C	Capacitive Charge	$V_R = 1200 \text{ V}$	108		nC
R_{THJC}	Thermal Resistance		1.5		°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		>2000 >1700		V _{RMS}
Weight			2		g

Fig. 1

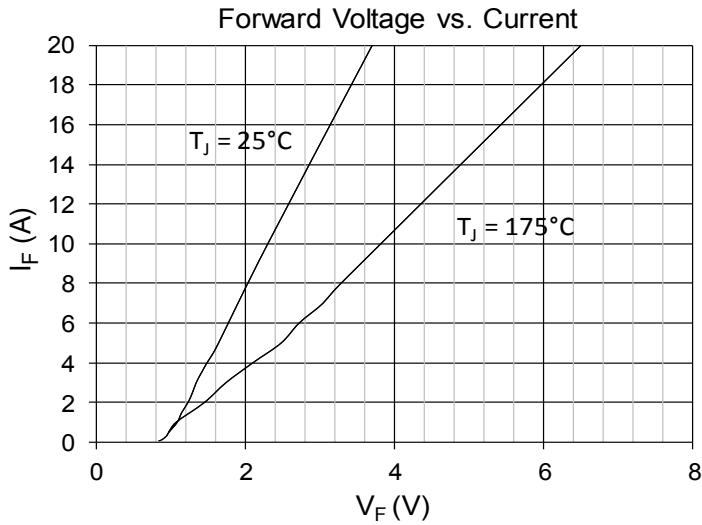


Fig. 2

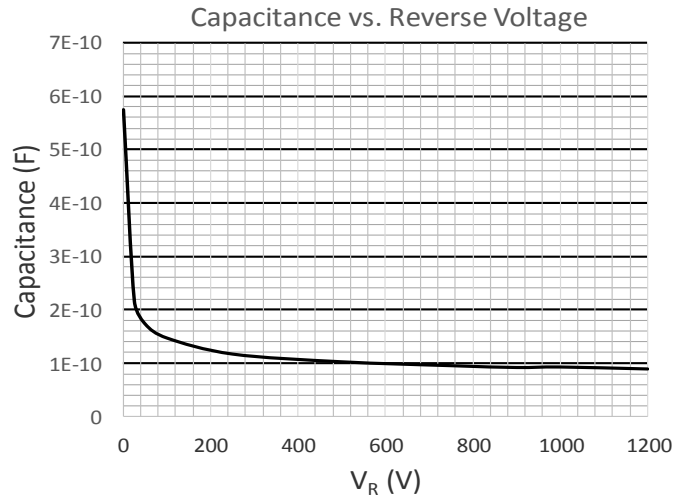


Fig. 3

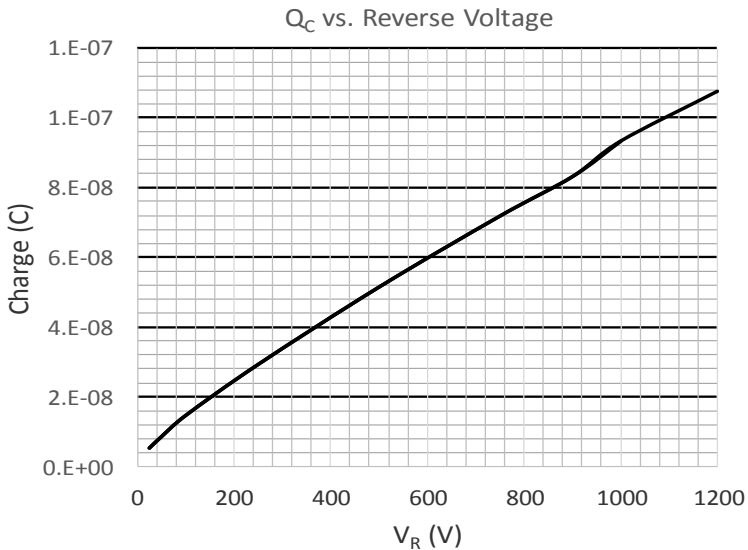


Fig. 4

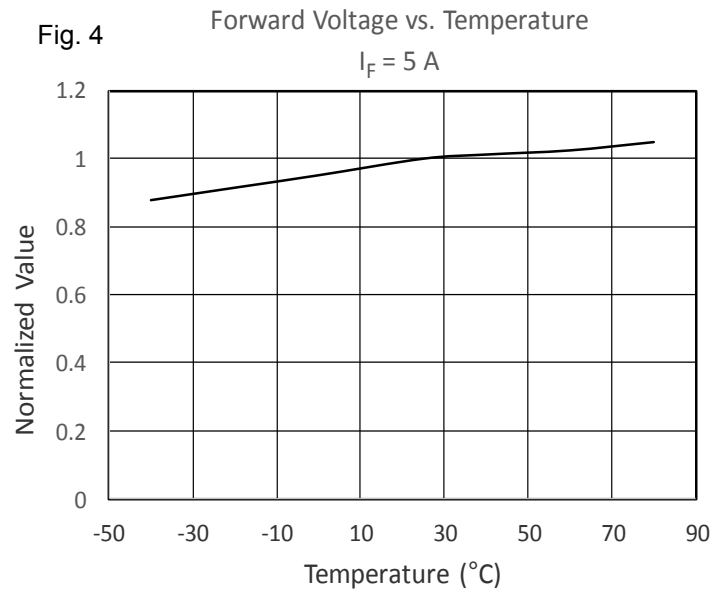


Fig. 5

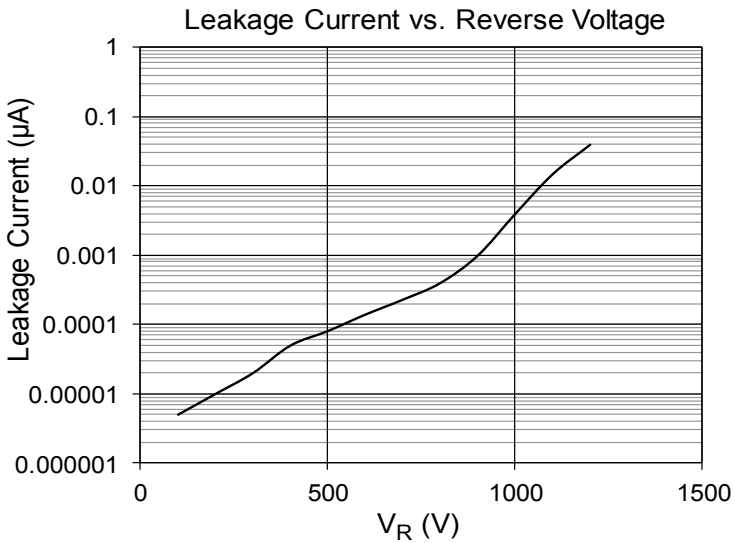


Fig. 6

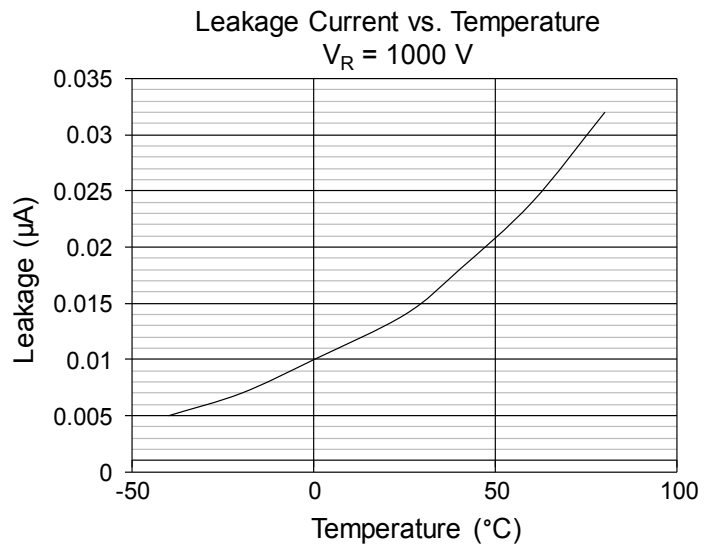
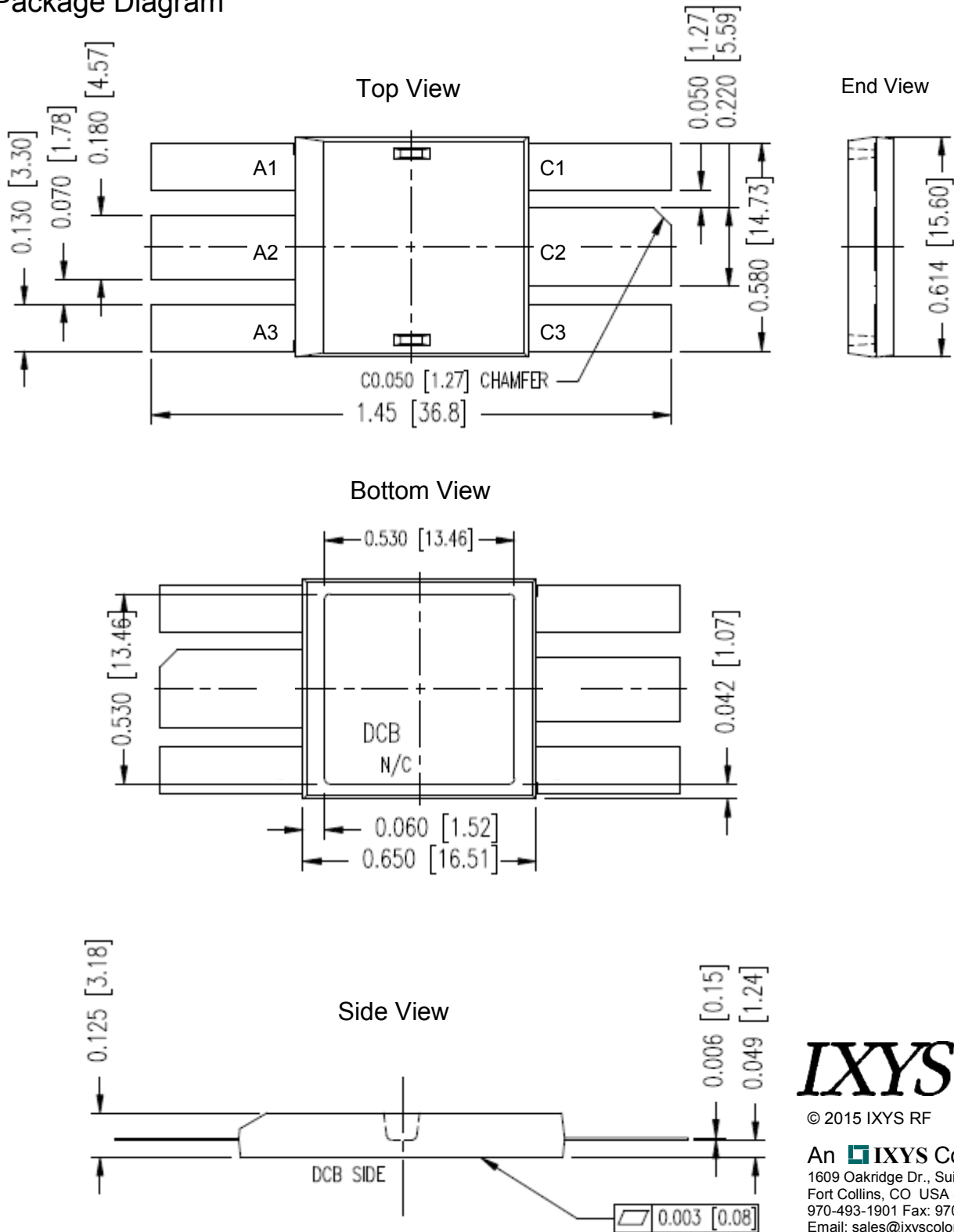


Fig. 7 Package Diagram



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