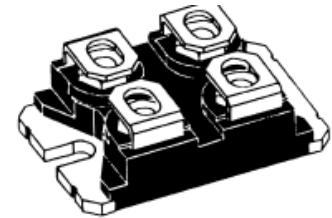


Low Voltage Drop Ultrafast Recovery Diode

DBA200WA40

$I_{F(AV)}= 2 \times 100A$, $V_{RRM}=400V$, $V_f=1.0V$, $t_{rr}=80ns$

SanRex outstanding planar Pt doping technology allows a New **DBA200WA40 Fast Recovery Diode Module** to feature a **very low voltage drop**. This benefit makes this design an extremely efficient and reliable for use in wide variety of applications requiring high speed and low conduction loss.



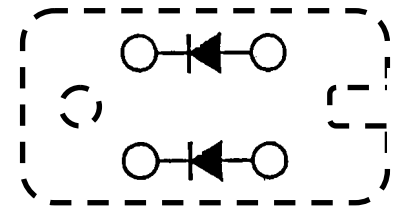
Isolated SOT-227 Package

Features

- * Very Low Forward Voltage Drop
- * Very Fast Reverse Recovery Time
- * Soft Recovery Characteristics
- * Compact isolated SOT-227 package

Typical Applications

- * Welding Machines
- * DC chopper
- * Rectifier in Switch Mode Power Supplies (SMPS)
- * High Frequency Battery Chargers
- * Free Wheeling Diode in converters and motor control circuits



Internal schematic diagram

< Maximum Ratings >

$T_j = 25^\circ C$ (unless otherwise noted) per diode

Symbol	Item	Conditions	Ratings	Unit
V_R	Reverse Voltage		400	V
$I_{F(AV)}$	Average Forward Current	D.C., $T_C = 96^\circ C$	100	A
I_{FSM}	Surge Forward Current	1/2 cycle, 50Hz, Peak value, non-repetitive	1000	A
$I^2 t$	$I^2 t$ (for fusing)	Value for one cycle surge current	2100	A ² s
T_j	Junction Temperature		-40 to +150	°C
T_{stg}	Storage Temperature		-40 to +125	°C
V_{ISO}	Isolation Voltage (R.M.S.)	A.C. 1 minute	2500	V
	Mounting Torque	Mounting M4	Recommended 1.0-1.4	N·m
		Terminal M4	Recommended 1.0-1.4	
	Mass	Typical Value	30	g

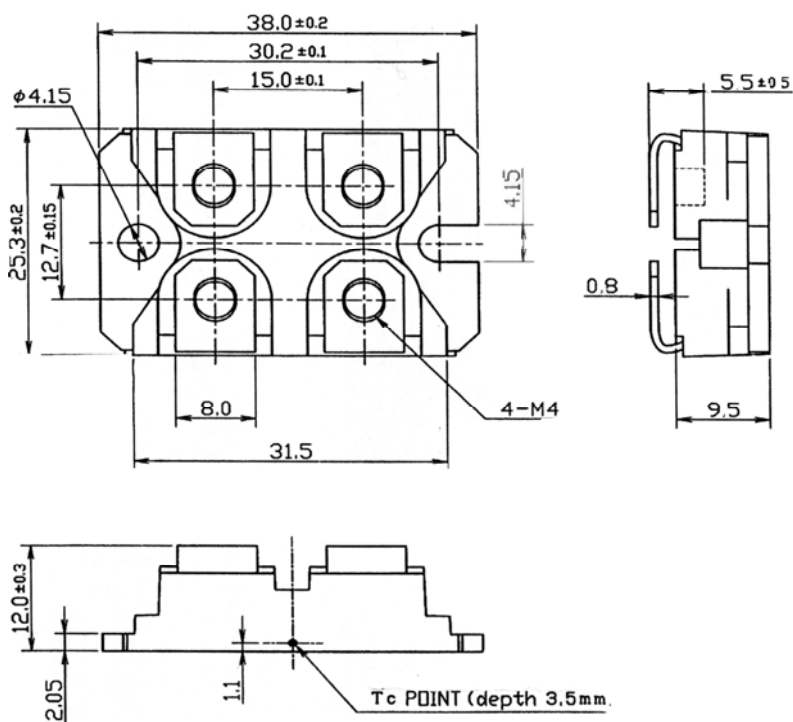
Low Voltage Drop Ultra Fast Recovery Diode

DBA200WA40

< Electrical Characteristics >

$T_j = 25^\circ\text{C}$ (unless otherwise noted) per diode

Symbol	Item	Conditions	Ratings			Unit
			Min.	Typ.	Max.	
I_R	Reverse Current	$V_R = 400\text{V}, T_j = 150^\circ\text{C}$			4	mA
V_{FM}	Forward Voltage Drop	$I_F = 100\text{A}$, Inst. measurement	1.00	1.10	1.20	V
t_{rr}	Reverse Recovery Time	$I_F = 100\text{A}, V_R = 200\text{V}, -di/dt = 200\text{A}/\mu\text{s}$		80	110	ns
$R_{th(j-c)}$	Thermal Resistance	Junction to case			0.45	$^\circ\text{C}/\text{W}$



* Dimensions in millimeters