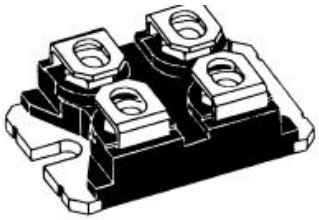
SanRex®

Fast & Soft Recovery Diode

DBA200UA60

$I_{F(AV)}$= 2x100A, V_{RRM}=600V, t_{rr}=150ns

SanRex Fast & Soft Recovery Diode Module **DBA200UA60** is designed for applications requiring fast switching and soft recovery wave shape to reduce or eliminate the need for snubber components in the circuit. The modules are isolated for easy mounting with other components or a common heatsink.



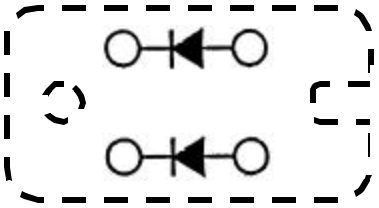
Isolated SOT-227 Package

Features

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

Typical Applications

* Welding and Plasma Cutting Machines
* DC chopper
* Rectifier in Switch Mode Power Supplies (SMPS)
* Uninterruptible Power Supplies (UPS)
* Free Wheeling Diode in converters and motor control circuits



Internal schematic diagram

< Maximum Ratings > Tj = 25°C (unless otherwise noted) per diode

Symbol	Item		Conditions	Ratings	Unit
V_{RRM}	Repetitive Peak Reverse Voltage			600	V
$V_{R(DC)}$	Reverse D.C. Voltage			480	V
$I_{F(AV)}$	Average Forward Current		D.C., T_C = 89°C	100	A
I_{FSM}	Surge Forward Current		½ cycle, 60Hz, Peak value, non-repetitive	700	A
I^2t	I^2t (for fusing)		Value for one cycle surge current	2100	A^2s
Tj	Junction Temperature			-40 to +150	°C
Tstg	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	1.5	N·m
		Terminal M4	Recommended 1.0-1.4	1.5	
	Mass		Typical Value	30	g

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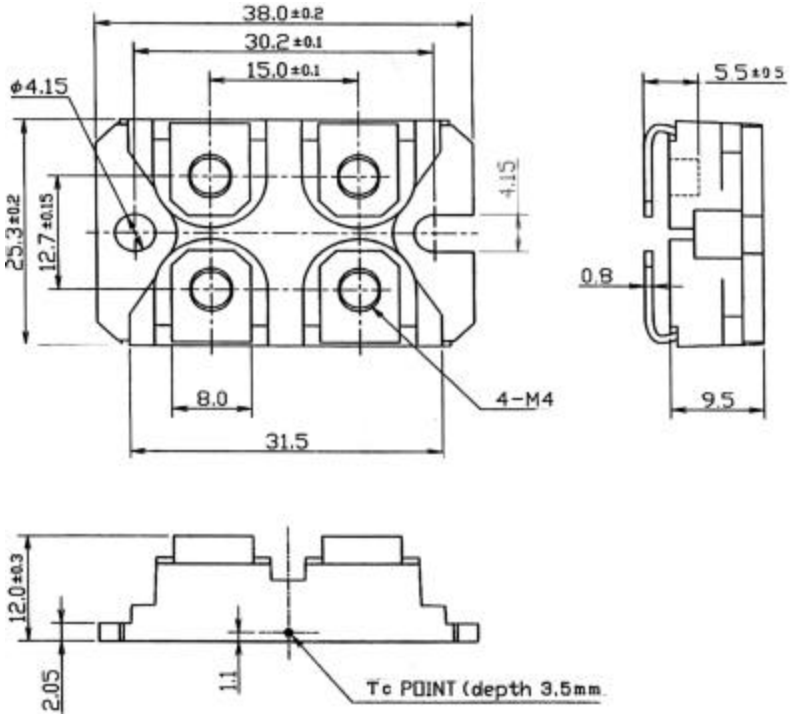
< Electrical Characteristics > Tj= 25°C (unless otherwise noted) per diode

Symbol	Item	Conditions	Ratings			Unit
			Min.	Typ.	Max.	
I_{RRM}	Repetitive Peak Reverse Current	$V_R = V_{RRM}$, Tj= 150°C			100	mA
V_{FM}	Forward Voltage Drop	I_F= 100A, Inst. measurement		1.20	1.35	V
t_{rr}	Reverse Recovery Time	I_F= 100A, V_R=300V, -di / dt = 200A/μs		150	250	n s
Rth(j-c)	Thermal Resistance	Junction to case			0.45	°C/W



* Dimensions in millimeters

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