

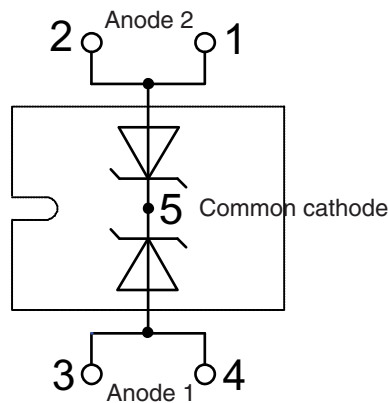
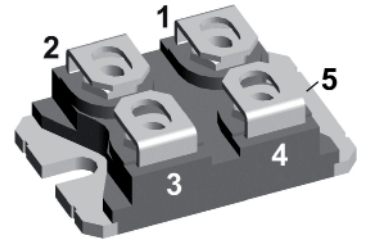
Power Schottky Rectifier

Non isolated

$I_{FAVM} = 2x160 \text{ A}$
 $V_{RRM} = 100 \text{ V}$
 $V_F = 0.81 \text{ V}$

Part number

DSS 2x160-01A



Features / Advantages:

- Very low V_F
- Extremely low switching losses
- Low I_{RM} -values
- High reliability circuit operation
- Low voltage peaks for reduced protection circuits
- Low noise switching
- Low losses

Applications:

- Rectifiers in switch mode power supplies (SMPS)
- Free wheeling diode in low voltage converters

Package: SOT-227UI (minibloc)

- Industry standard outline
- RoHS compliant
- Epoxy meets UL 94V-0
- Base plate: Copper (non isolated)
- Advanced power cycling

Disclaimer Notice

Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at www.littelfuse.com/disclaimer-electronics.

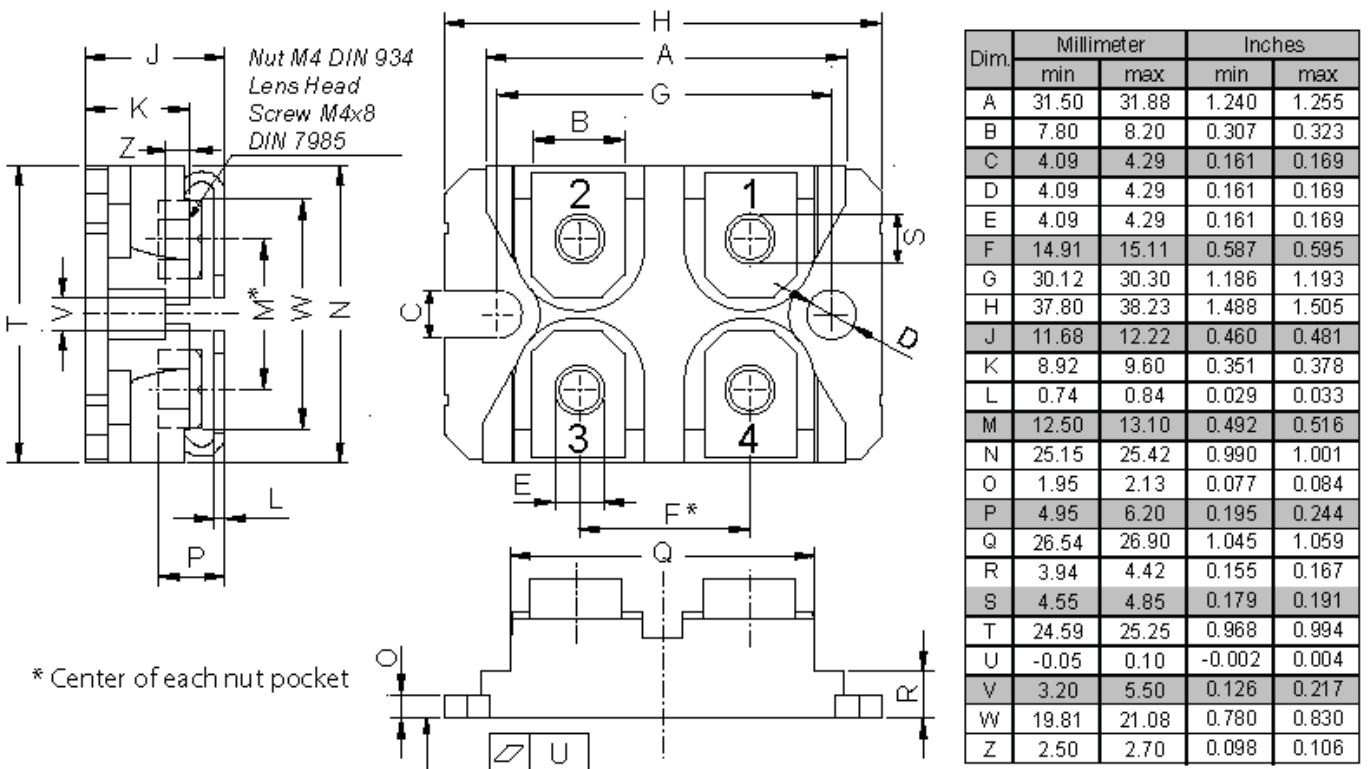
Symbol	Conditions	Maximum Ratings	
I_{FRMS}		200	A
I_{FAVM}	$T_C = 95^\circ\text{C}$; rectangular, $d = 0.5$	160	A
I_{FAVM}	$T_C = 95^\circ\text{C}$; rectangular, $d = 0.5$; per device	320	A
I_{FSM}	$T_{VJ} = 45^\circ\text{C}$; $t = 10\text{ ms}$ (50 Hz), sine	1400	A
E_{AS}	$I_{AS} = 15\text{ A}$; $L = 100\ \mu\text{H}$; $T_{VJ} = 25^\circ\text{C}$; non repetitive	11.3	mJ
I_{AR}	$V_A = 1.5 \cdot V_{RRM}$ typ.; $f = 10\text{ kHz}$; repetitive	1.5	A
$(dv/dt)_{cr}$		5000	V/ μs
P_{tot}	$T_C = 25^\circ\text{C}$	410	W

Symbol	Conditions	Characteristic Values		
		typ.	max.	
I_R ①	$V_R = V_{RRM}$ $T_{VJ} = 25^\circ\text{C}$		4	mA
	$V_R = V_{RRM}$ $T_{VJ} = 125^\circ\text{C}$		40	mA
V_F	$I_F = 160\text{ A}$ $T_{VJ} = 125^\circ\text{C}$		0.81	V
			0.98	V
	$I_F = 320\text{ A}$ $T_{VJ} = 125^\circ\text{C}$		1.08	V
R_{thJC}			0.30	K/W
R_{thCH}		0.15		K/W

① Pulse Width = 5 ms, Duty Cycle < 2.0 %

Data according to IEC 60747 and per diode unless otherwise specified

Outlines SOT-227B (minibloc)

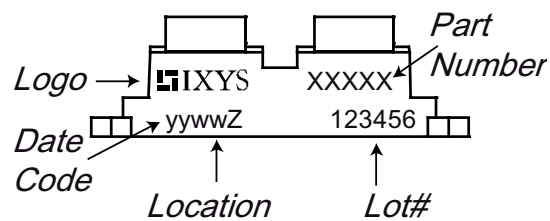


IXYS reserves the right to change limits, test conditions and dimensions.

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Package SOT-227UI (minibloc)				Ratings			
Symbol	Definitions	Conditions	min.	typ.	max.		
I_{RMS}	RMS current	per terminal			150	A	
T_{VJ}	virtual junction temperature		-40		150	°C	
T_{op}	operation temperature		-40		125	°C	
T_{stg}	storage temperature		-40		150	°C	
Weight				30		g	
M_D	mounting torque		1.1		1.5	Nm	
M_T	terminal torque		1.1		1.5	Nm	
$d_{Spp/App}$	creepage distance on surface striking distance through air	terminal to terminal	10.5	0.8		Nm	
$d_{Spb/Apb}$		terminal to backside	8.6	20		N	

Product Marking



Ordering	Part Number	Marking on Product	Delivering Mode	Base Qty	Ordering Code
Standard	DSS2x160-01A	DSS2x160-01A	Tube	10	DSS2x160-01A

Curves

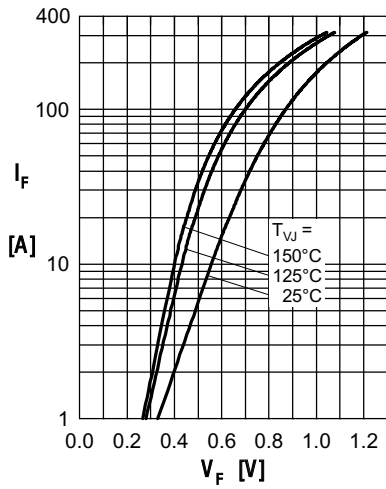


Fig. 1 Max. forward voltage drop characteristics

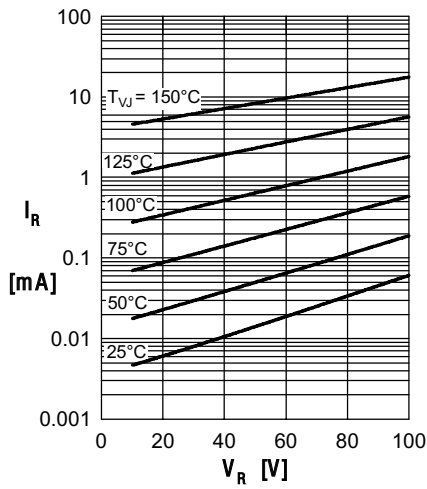


Fig. 2 Typ. reverse current I_R vs. reverse voltage V_R

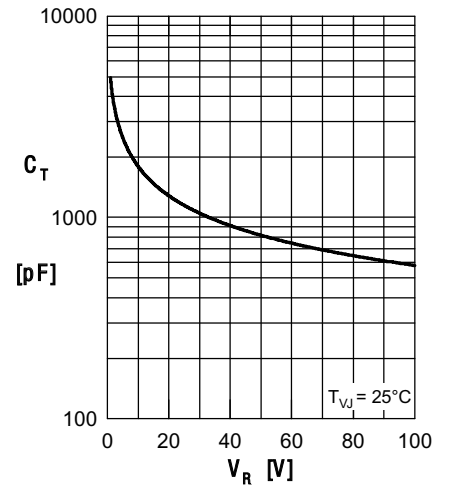


Fig. 3 Typ. junction capacitance C_T vs. reverse voltage V_R

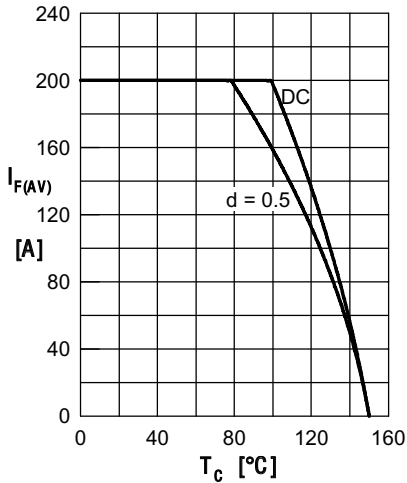


Fig. 4 Average forward current $I_{F(AV)}$ vs. case temp. T_C

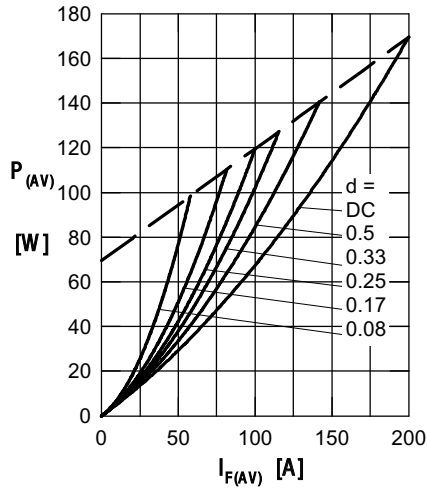


Fig. 5 Forward power loss characteristics

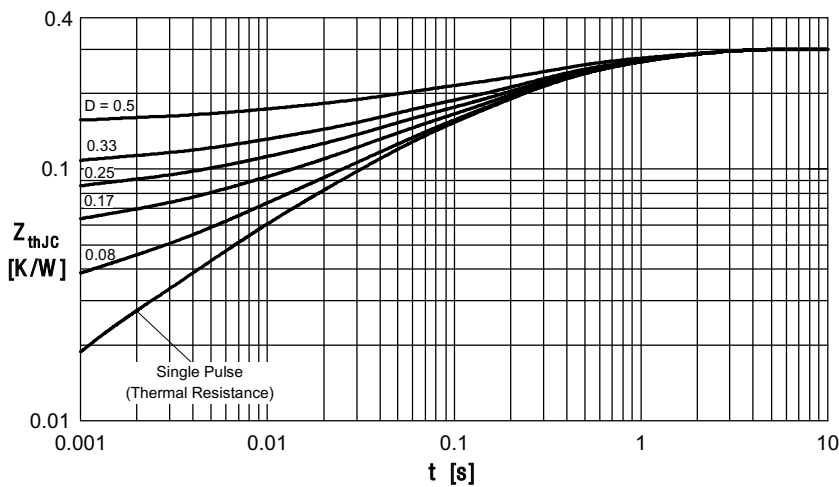


Fig. 6 Transient thermal impedance junction to case at various duty cycles

Note: All curves are per diode