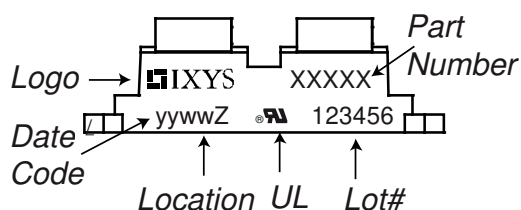


Schottky				Ratings			
Symbol	Definition	Conditions		min.	typ.	max.	Unit
V_{RSM}	max. non-repetitive reverse blocking voltage	$T_{VJ} = 25^{\circ}\text{C}$				100	V
V_{RRM}	max. repetitive reverse blocking voltage	$T_{VJ} = 25^{\circ}\text{C}$				100	V
I_R	reverse current, drain current	$V_R = 100\text{ V}$	$T_{VJ} = 25^{\circ}\text{C}$			2	mA
		$V_R = 100\text{ V}$	$T_{VJ} = 125^{\circ}\text{C}$			20	mA
V_F	forward voltage drop	$I_F = 60\text{ A}$	$T_{VJ} = 25^{\circ}\text{C}$			0.91	V
		$I_F = 120\text{ A}$				1.10	V
		$I_F = 60\text{ A}$	$T_{VJ} = 125^{\circ}\text{C}$			0.74	V
		$I_F = 120\text{ A}$				0.95	V
I_{FAV}	average forward current	$T_C = 105^{\circ}\text{C}$ rectangular $d = 0.5$	$T_{VJ} = 150^{\circ}\text{C}$			60	A
V_{F0}	threshold voltage	} for power loss calculation only		$T_{VJ} = 150^{\circ}\text{C}$		0.49	V
r_F	slope resistance					3.5	mΩ
R_{thJC}	thermal resistance junction to case					0.8	K/W
R_{thCH}	thermal resistance case to heatsink				0.1		K/W
P_{tot}	total power dissipation	$T_C = 25^{\circ}\text{C}$				150	W
I_{FSM}	max. forward surge current	$t = 10\text{ ms}; (50\text{ Hz}), \text{ sine}; V_R = 0\text{ V}$	$T_{VJ} = 45^{\circ}\text{C}$			700	A
C_J	junction capacitance	$V_R = 12\text{ V}$ $f = 1\text{ MHz}$	$T_{VJ} = 25^{\circ}\text{C}$		863		pF

Package SOT-227B (minibloc)				Ratings				
Symbol	Definition	Conditions		min.	typ.	max.	Unit	
I _{RMS}	RMS current	per terminal				100	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	3.2			mm	
d _{Spb/Apb}		terminal to backside	8.6	6.8			mm	
V _{ISOL}	isolation voltage	t = 1 second	50/60 Hz, RMS; I _{ISOL} ≤ 1 mA		3000			V
		t = 1 minute			2500			V

Product Marking

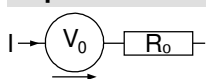


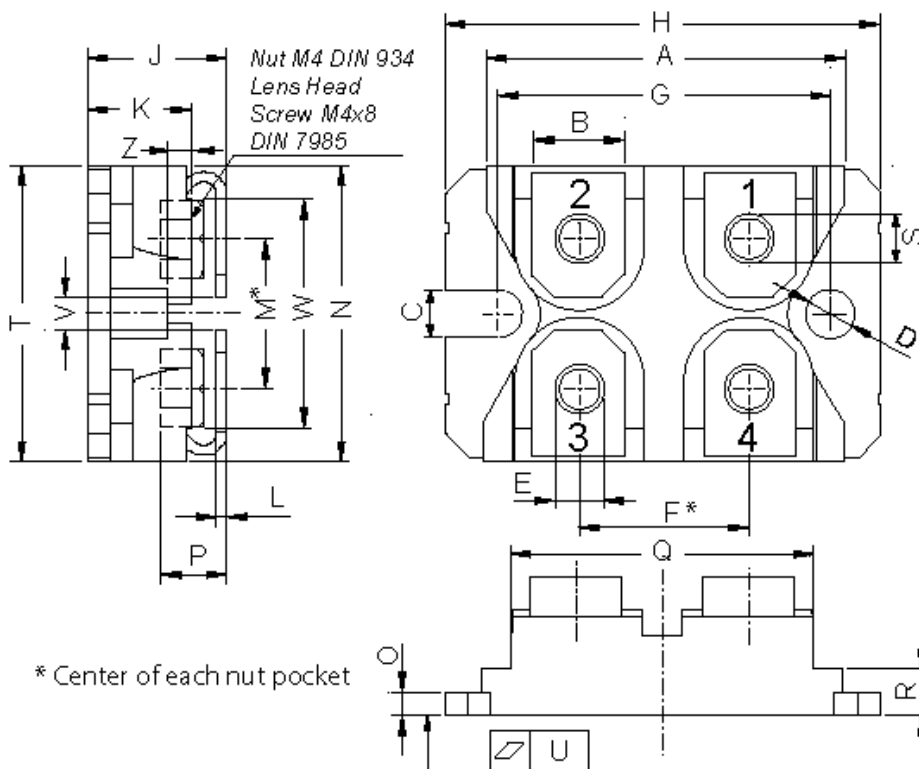
Ordering	Ordering Number	Marking on Product	Delivery Mode	Quantity	Code No.
Standard	DSS2x61-01A	DSS2x61-01A	Tube	10	470961

Equivalent Circuits for Simulation

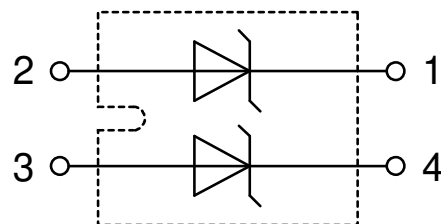
* on die level

$T_{VJ} = 150^{\circ}\text{C}$

		Schottky	
$V_{0\max}$	threshold voltage	0.49	V
$R_{0\max}$	slope resistance *	1.7	mΩ

Outlines SOT-227B (minibloc)


Dim.	Millimeter		Inches	
	min	max	min	max
A	31.50	31.88	1.240	1.255
B	7.80	8.20	0.307	0.323
C	4.09	4.29	0.161	0.169
D	4.09	4.29	0.161	0.169
E	4.09	4.29	0.161	0.169
F	14.91	15.11	0.587	0.595
G	30.12	30.30	1.186	1.193
H	37.80	38.23	1.488	1.505
J	11.68	12.22	0.460	0.481
K	8.92	9.60	0.351	0.378
L	0.74	0.84	0.029	0.033
M	12.50	13.10	0.492	0.516
N	25.15	25.42	0.990	1.001
O	1.95	2.13	0.077	0.084
P	4.95	6.20	0.195	0.244
Q	26.54	26.90	1.045	1.059
R	3.94	4.42	0.155	0.167
S	4.55	4.85	0.179	0.191
T	24.59	25.25	0.968	0.994
U	-0.05	0.10	-0.002	0.004
V	3.20	5.50	0.126	0.217
W	19.81	21.08	0.780	0.830
Z	2.50	2.70	0.098	0.106



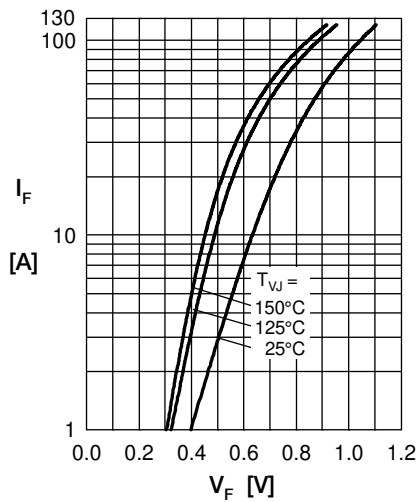
Schottky


Fig. 1 Maximum forward voltage drop characteristics

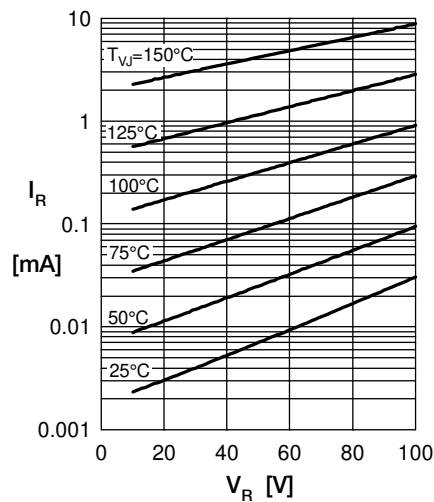
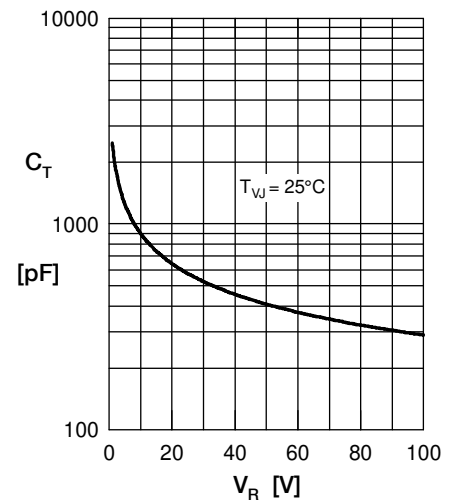
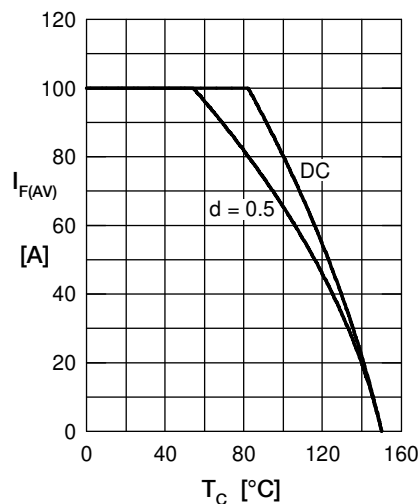
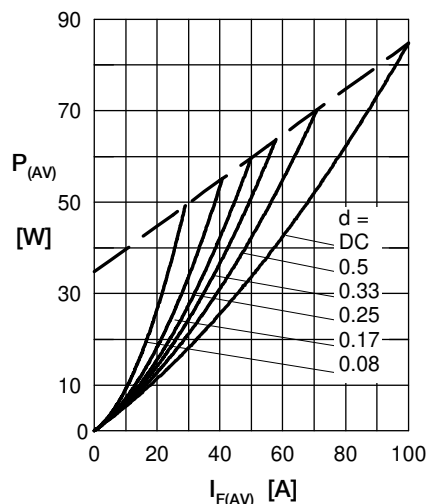

 Fig. 2 Typ. reverse current I_R vs. reverse voltage V_R

 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

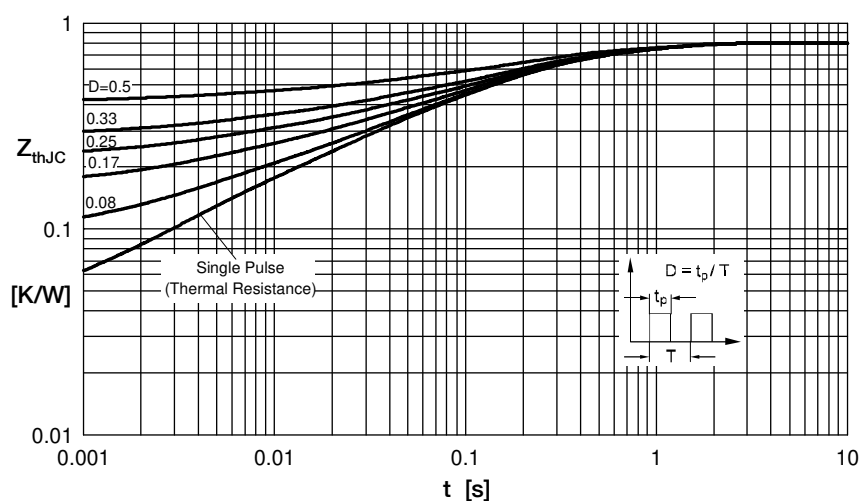


Fig. 6 Transient thermal impedance junction to case at various duty cycles

Note: All curves are per diode