Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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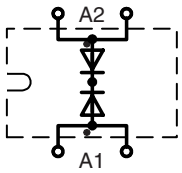
Power Schottky Rectifier

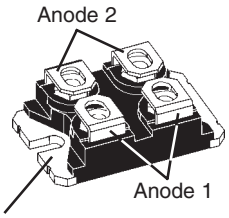
Non isolated

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

V_{RSM} V	V_{RRM} V	Type
100	100	DSS 2x160-01A



miniBLOC, SOT-227 B



Symbol	Conditions	Maximum Ratings	
I_{FRMS}		200	A
I_{FAVM}	T_C = 95°C; rectangular, d = 0.5	160	A
I_{FAVM}	T_C = 95°C; rectangular, d = 0.5; per device	320	A
I_{FSM}	T_{VJ} = 45°C; t_p = 10 ms (50 Hz), sine	1400	A
E_{AS}	I_{AS} = 15 A; L = 100 µH; T_{VJ} = 25°C; non repetitive	11.3	mJ
I_{AR}	V_A =1.5 • V_{RRM} typ.; f=10 kHz; repetitive	1.5	A
$(dv/dt)_{cr}$		5000	V/µs
T_{VJ}		-40...+150	°C
T_{VJM}		150	°C
T_{stg}		-40...+150	°C
P_{tot}	T_C = 25°C	410	W
M_d	mounting torque (M4)	1.1-1.5/9-13	Nm/lb.in.
	terminal connection torque (M4)	1.1-1.5/9-13	Nm/lb.in.
Weight	typical	30	g

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

Pulse test: ① Pulse Width = 5 ms, Duty Cycle < 2.0 %
Data according to IEC 60747 and per diode unless otherwise specified.

Features

- International standard package miniBLOC
- Epoxy meets UL 94V-0
- Very low V_F
- Extremely low switching losses
- Low I_{RM}-values

Applications

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

Advantages

- High reliability circuit operation
- Low voltage peaks for reduced protection circuits
- Low noise switching
- Low losses

Dimensions see Outlines.pdf

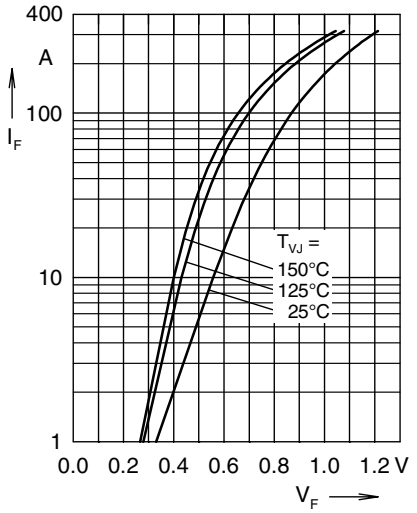


Fig. 1 Max. forward voltage drop characteristics

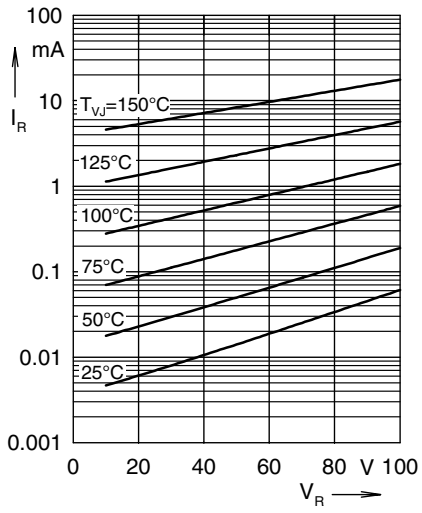


Fig. 2 Typ. reverse current I_R vs. reverse voltage V_R

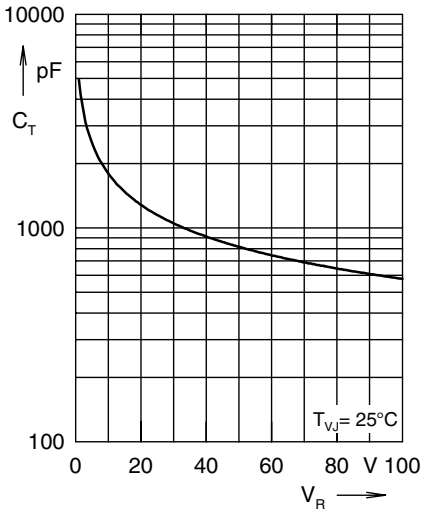


Fig. 3 Typ. junction capacitance C_T versus reverse voltage V_R

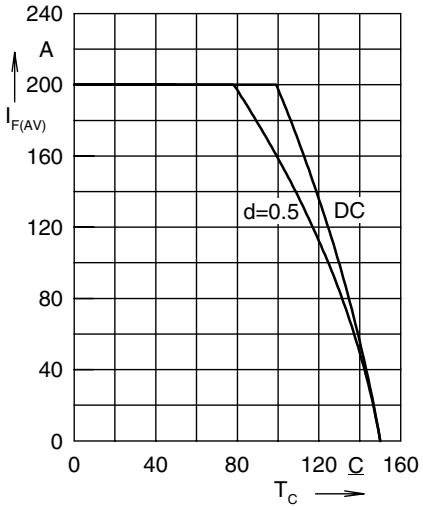


Fig. 4 Avg. forward current $I_{F(AV)}$ vs. case temperature T_C

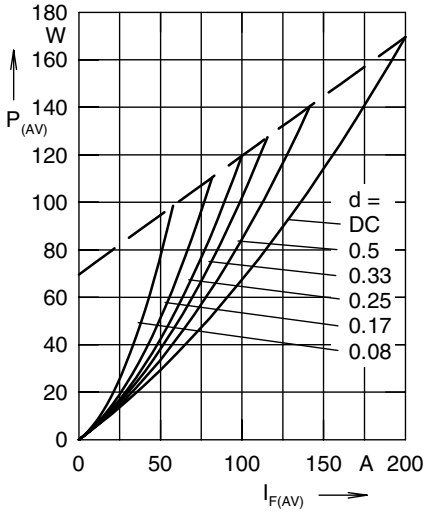


Fig. 5 Forward power loss characteristics

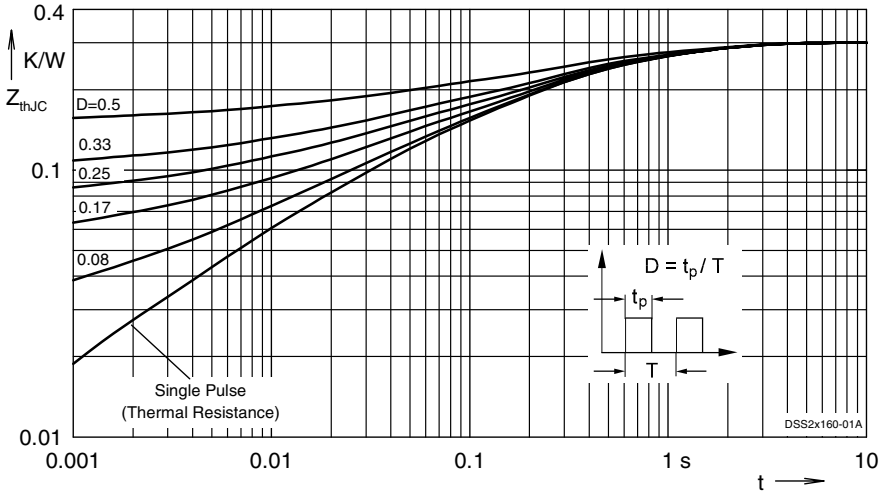


Fig. 6 Transient thermal impedance junction to case at various duty cycles

Note: All curves are per diode