

Rectifier Diode Modules

TYPE:MDC100A/1600V

Features

- Heat Transfer Through Aluminium Oxide Ceramic Isolated Metal Baseplate
- Hard Soldered Joints For High Reliability
- UL Recognized

Typical Applications

- Rectifier for drives applications
- Rectifiers for UBS
- Battery chargers

BLOCKING

Symbol	Condition	Ratings	Unit
V_{RRM}	$T_j = T_j \text{ Max.}$	1600	V
V_{RSM}		1700	
I_{RRM}	AtV_{RRM} , Single phase, half wave, $T_j = T_j \text{ Max.}$	15	mA
V_{INS}	50Hz, circuit to base, all terminal shorted	3600	V

CONDUCTING

Symbol	Condition	Ratings	Unit
$I_{F(AV)}$	$T_C = 85^\circ\text{C}$; 180° sine	100	A
$I_{F(RMS)}$	$T_C = 85^\circ\text{C}$; 180° sine	175	A
I_{FSM}	$T_j = T_j \text{ Max.}$; $t = 10 \text{ ms}$ (50 Hz); sine	2000	A
I^2t	$T_j = T_j \text{ Max.}$; $t = 10 \text{ ms}$ (50 Hz); sine	20	kA^2S
$V_{F(TO)}$	$(I > \pi \times I_{F(AV)})$, $T_j = T_j \text{ Max.}$	0.85	V
r_F	$(I > \pi \times I_{F(AV)})$, $T_j = T_j \text{ Max.}$	1.3	$\text{m}\Omega$
V_{FM}	On-State Current 300A, $T_j = 25^\circ\text{C}$	1.35	V

Electrical Characteristics

Symbol	Condition	Ratings	Unit
$R_{th(j-c)}$	Per Module	0.175	K/W
$R_{th(c-h)}$	Per Module	0.1	K/W
T_j		-40 ~ +125	$^\circ\text{C}$
T_{stg}		-40 ~ +125	$^\circ\text{C}$
M	mounting torque	5	Nm
	terminal torque	3	Nm
W		-	g

Outline Drawing

