

**MSASC100W100H**  
**MSASC100W100HR**

**Features**

- Tungsten schottky barrier
- Oxide passivated structure for very low leakage currents
- Guard ring protection for increased reverse energy capability
- Epitaxial structure minimizes forward voltage drop
- Hermetically sealed, low profile ceramic surface mount power package
- Low package inductance
- Very low thermal resistance
- Available as standard polarity (strap-to-anode, MSASC100W100H) and reverse polarity (strap-to-cathode: MSASC100W100HR)

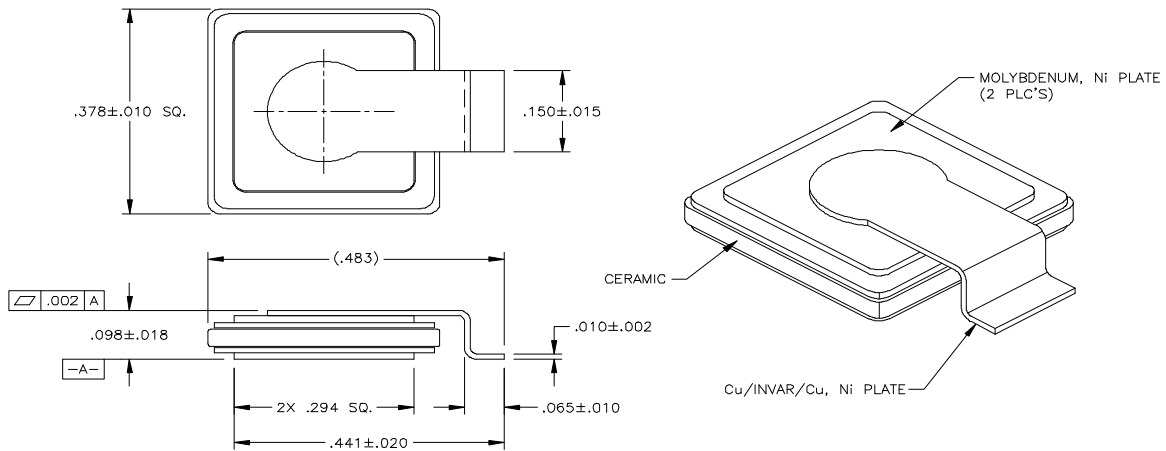
**100 Volts**  
**100 Amps**

**LOW LEAKAGE**  
**SCHOTTKY DIODE**

**Maximum Ratings @ 25°C (unless otherwise specified)**

DESCRIPTION	SYMBOL	MAX.	UNIT
Peak Repetitive Reverse Voltage	$V_{RRM}$	100	Volts
Working Peak Reverse Voltage	$V_{RWM}$	100	Volts
DC Blocking Voltage	$V_R$	100	Volts
Average Rectified Forward Current, $T_c \leq 135^\circ\text{C}$	$I_{F(ave)}$	100	Amps
derating, forward current, $T_c \geq 135^\circ\text{C}$	$di_F/dT$	2.5	Amps/ $^\circ\text{C}$
Nonrepetitive Peak Surge Current, $t_p = 8.3$ ms, half-sinewave	$I_{FSM}$	500	Amps
Peak Repetitive Reverse Surge Current, $t_p = 1\mu\text{s}$ , $f = 1\text{kHz}$	$I_{RRM}$	2	Amp
Junction Temperature Range	$T_j$	-65 to +175	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-65 to +175	$^\circ\text{C}$
Thermal Resistance, Junction to Case: MSASC100W100H	$\theta_{JC}$	0.35 0.5	$^\circ\text{C/W}$

**Mechanical Outline**



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**Electrical Parameters**

DESCRIPTION	SYMBOL	CONDITIONS	MIN	TYP.	MAX	UNIT
Reverse (Leakage) Current	IR <sub>25</sub>	VR= 100 Vdc, Tc= 25°C		.05	1	mA
	IR <sub>125</sub>	VR= 100 Vdc, Tc= 125°C		10	100	mA
Forward Voltage pulse test, pw= 300 μs d/c≤ 2%	VF1	IF= 10A, Tc= 25°C		570	620	mV
	VF2	IF= 20A, Tc= 25°C		670	720	mV
	VF3	IF= 40A, Tc= 25°C		760	820	mV
	VF4	IF= 80A, Tc= 25°C		890	950	mV
	VF5	IF= 100A, Tc= 25°C		940		mV
	VF6	IF= 20A, Tc= -55°C		710	800	mV
	VF7	IF= 20A, Tc= 125°C		540		mV
Junction Capacitance	Cj1	VR= 10 Vdc		1500	2000	pF
	Cj2	VR= 5 Vdc		tbd		pF
Breakdown Voltage	BVR	IR= 1 mA, Tc= 25°C		120		V
		IR= 1 mA, Tc= -55°C	100	110		V