

Features

- Platinum/Tungsten schottky barrier for low forward voltage drop
- 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
- TXV-level (MSASC150H45AV) or S-level (MSASC150H45AS) screening i.a.w. Microsemi Internal Procedure PS 11.50 available

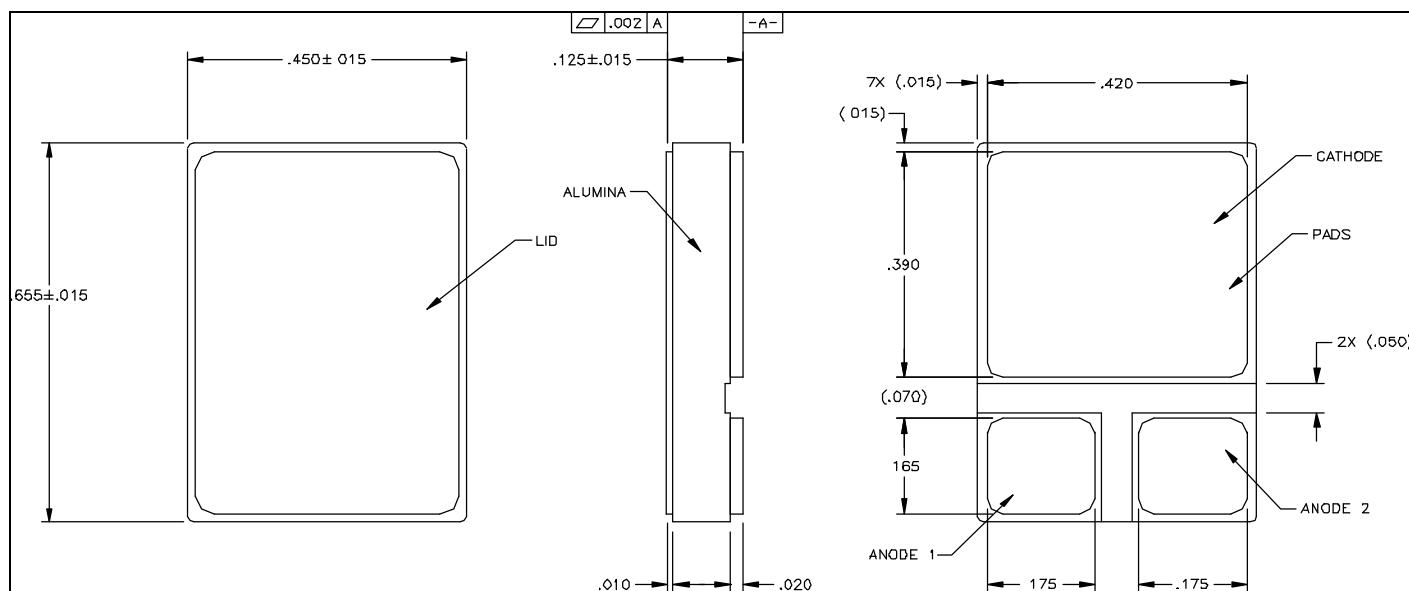
**45 Volts
150 Amps**

**LOW VOLTAGE
DROP SCHOTTKY
DIODE**

Maximum Ratings @ 25°C (unless otherwise specified)

DESCRIPTION	SYMBOL	MAX.	UNIT
Peak Repetitive Reverse Voltage	V _{RRM}	45	Volts
Working Peak Reverse Voltage	V _{RWM}	45	Volts
DC Blocking Voltage	V _R	45	Volts
Average Rectified Forward Current, T _c ≤ 135°C	I _{F(ave)}	150	Amps
derating, forward current, T _c ≥ 135°C	dI _F /dT	(3.75)	Amps/°C
Nonrepetitive Peak Surge Current, t _p = 8.3 ms, half-sinewave	I _{FSM}	500	Amps
Peak Repetitive Reverse Surge Current, t _p = 1μs, f= 1kHz	I _{RRM}	2	Amp
Junction Temperature Range	T _j	-65 to +175	°C
Storage Temperature Range	T _{stg}	-65 to +175	°C
Thermal Resistance, Junction to Case	θ _{JC}	0.25	°C/W

Mechanical Outline



MSASC150H50A

Santa Ana, CA
Microsemi
Progress Powered by Technology

Electrical Parameters

DESCRIPTION	SYMBOL	CONDITIONS	MIN	TYP.	MAX	UNIT
Reverse (Leakage)	IR ₂₅	VR= 45 Vdc, Tc= 25°C		1	10	mA
	IR ₁₀₀	VR= 45 Vdc, Tc= 100°C		125	400	
	IR ₁₂₅	VR= 45 Vdc, Tc= 125°C		500		mA
Forward Voltage pulse test, pw= 300 μs d/c≤ 2%	VF1	IF= 20A, Tc= 25°C		400	450	mV
	VF2	IF= 50A, Tc= 25°C		500	565	mV
	VF3	IF= 100A, Tc= 25°C		650	730	mV
	VF4	IF= 150A, Tc= 25°C		770	900	mV
	VF5	IF= 50A, Tc= -55°C		580	670	mV
	VF6	IF= 50A, Tc= 125°C		420	500	mV
	VF7	IF= 100A, Tc= 125°C		590	-	mV
	VF8	IF= 10 mA, Tc= 25°C		135		mV
	VF9	IF= 50 mA, Tc= 25°C		175		mV
	VF10	IF= 100 mA, Tc= 25°C		195		mV
Junction Capacitance	C _{j1}	VR= 10 Vdc		4500	4900	pF
	C _{j2}	VR= 5 Vdc		6400		pF
Breakdown Voltage	BVR	IR= 5 mA, Tc= 25°C	45	55		V
		IR= 5 mA, Tc= -55°C	45	50		V