

1N6817
(MSASC25W100K)
1N6817R
(MSASC25W100KR)

100 Volts
25 Amps

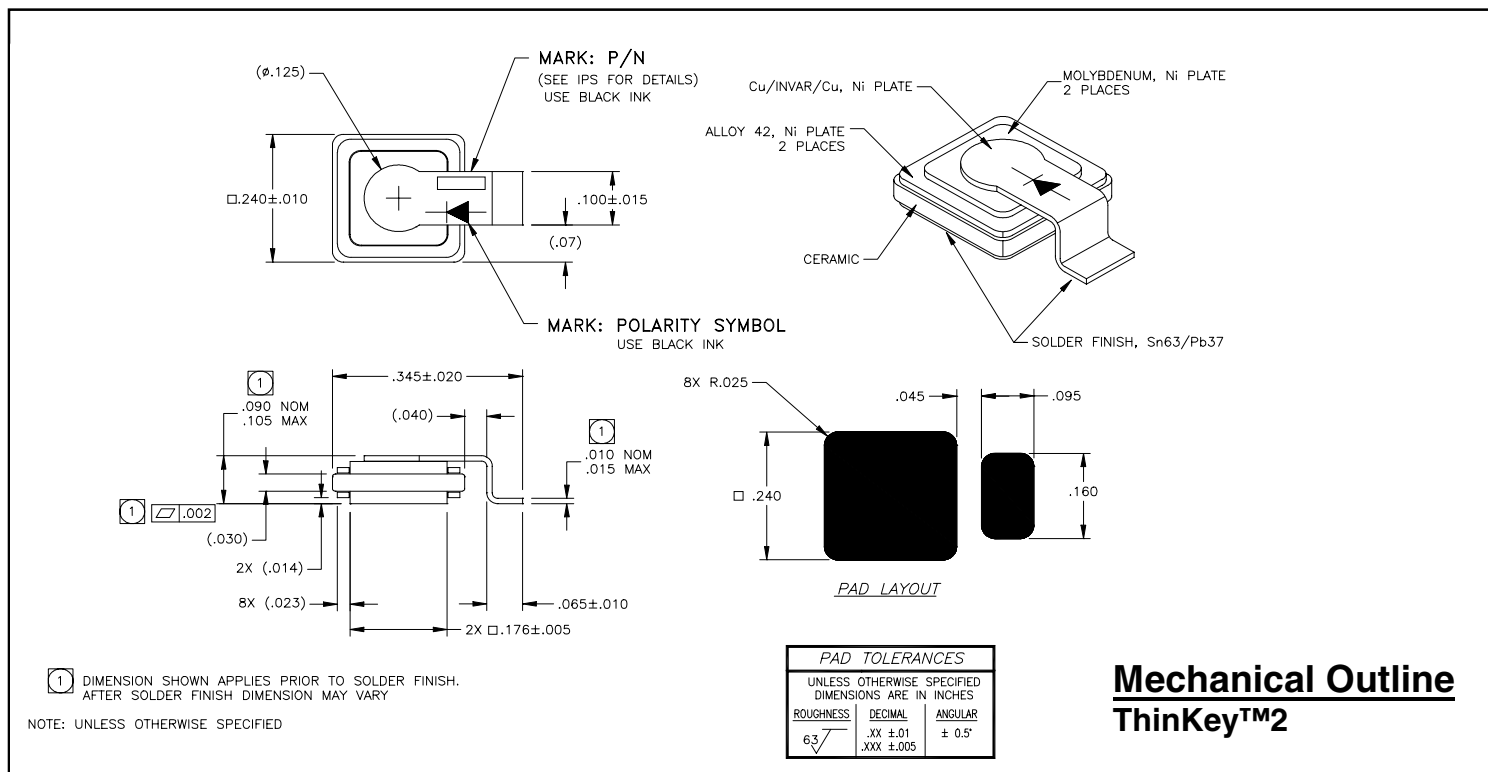
LOW REVERSE LEAKAGE SCHOTTKY DIODE

Features

- Tungsten schottky barrier
- Oxide passivated structure
- 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 is anode: 1N6817) and reverse polarity (strap is cathode: 1N6817R)
- TXV-level screening (MSASC25W100KV) or S-level (MSASC25W100KS) screening i.a.w. Microsemi internal procedure PS11.50 available

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, $T_c \leq 145^\circ\text{C}$	$I_{F(ave)}$	25	Amps
derating, forward current, $T_c \geq 145^\circ\text{C}$	dlf/dT	(3.3)	Amps/ $^\circ\text{C}$
Nonrepetitive Peak Surge Current, $t_p = 8.3$ ms, half-sinewave	I_{FSM}	120	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	-55 to +175	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to +175	$^\circ\text{C}$
Thermal Resistance, Junction to Case:	θ_{JC}	1N6817 1N6817R	$^\circ\text{C/W}$
		1.25	
		1.35	



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Electrical Parameters

DESCRIPTION	SYMBOL	CONDITIONS	MIN	TYP.	MAX	UNIT
Reverse (Leakage) Current	IR ₂₅	VR= 100 Vdc, Tc= 25°C		7	300	μA
	IR ₁₂₅	VR= 100 Vdc, Tc= 125°C		2.5	15	mA
Forward Voltage pulse test, pw= 300 μs d/c≤ 2%	VF1	IF= 5A, Tc= 25°C		650	725	mV
	VF2	IF= 10A, Tc= 25°C		730	810	mV
	VF3	IF= 20A, Tc= 25°C		810	900	mV
	VF4	IF= 50A, Tc= 25°C		940	1020	mV
	VF7	IF= 100A, TC= 25°C		1060	-	mV
	VF5	IF= 20A, Tc= -55°C		925	1025	mV
	VF6	IF= 20A, Tc= 125°C		670	800	mV
Junction Capacitance	Cj1	VR= 10 Vdc		370	500	pF
	Cj2	VR= 5 Vdc		500		pF
Breakdown Voltage	BVR	IR= 1 mA, Tc= 25°C	100	120		V
		IR= 1 mA, Tc= -55°C	100			V