Santa Ana, CA
Microsemi
Progress Powered by Technology

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1N6817
(MSASC25W100K)
1N6817R
(MSASC25W100KR)

100 Volts
25 Amps

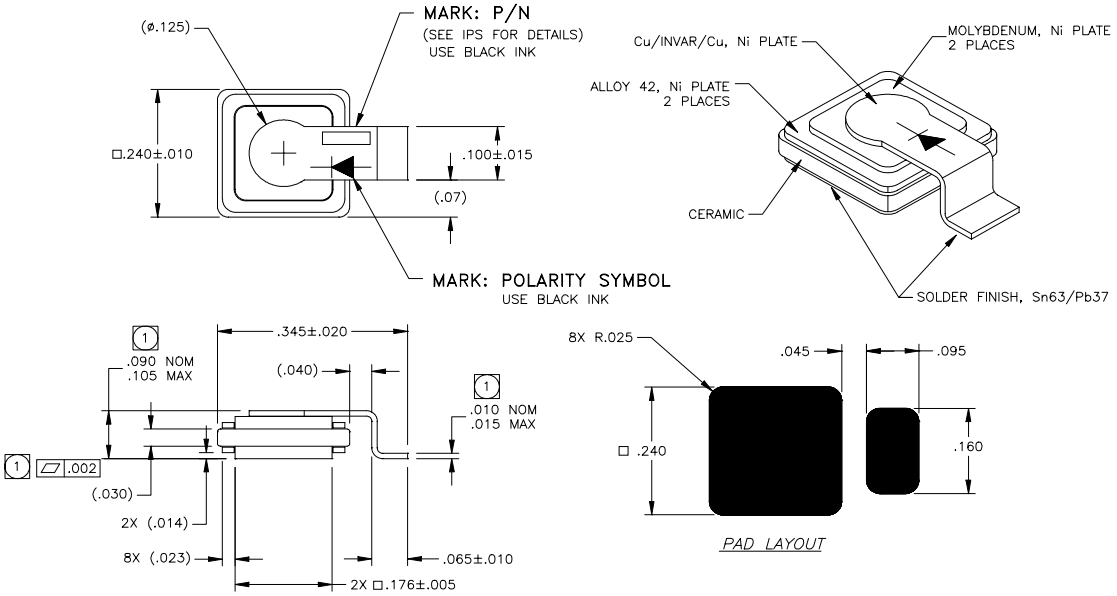
LOW REVERSE LEAKAGE SCHOTTKY DIODE

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, Tc≤ 145°C	$I_{F(ave)}$	25	Amps
derating, forward current, Tc≥ 145°C	dI_F/dT	(3.3)	Amps/°C
Nonrepetitive Peak Surge Current, tp= 8.3 ms, half-sinewave	I_{FSM}	120	Amps
Peak Repetitive Reverse Surge Current, tp= 1μs, f= 1kHz	I_{RRM}	2	Amp
Junction Temperature Range	T_j	-55 to +175	°C
Storage Temperature Range	T_{stg}	-55 to +175	°C
Thermal Resistance, Junction to Case: 1N6817 1N6817R	θ_{JC}	1.25 1.35	°C/W



1 DIMENSION SHOWN APPLIES PRIOR TO SOLDER FINISH. AFTER SOLDER FINISH DIMENSION MAY VARY

NOTE: UNLESS OTHERWISE SPECIFIED

PAD TOLERANCES
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

ROUGHNESS	DECIMAL	ANGULAR
63	.XX ±.01 .XXX ±.005	± 0.5°

Mechanical Outline
ThinKey™2

1N6817
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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