

**1N6792**  
**1N6792R**

**45 Volts**  
**25 Amps**

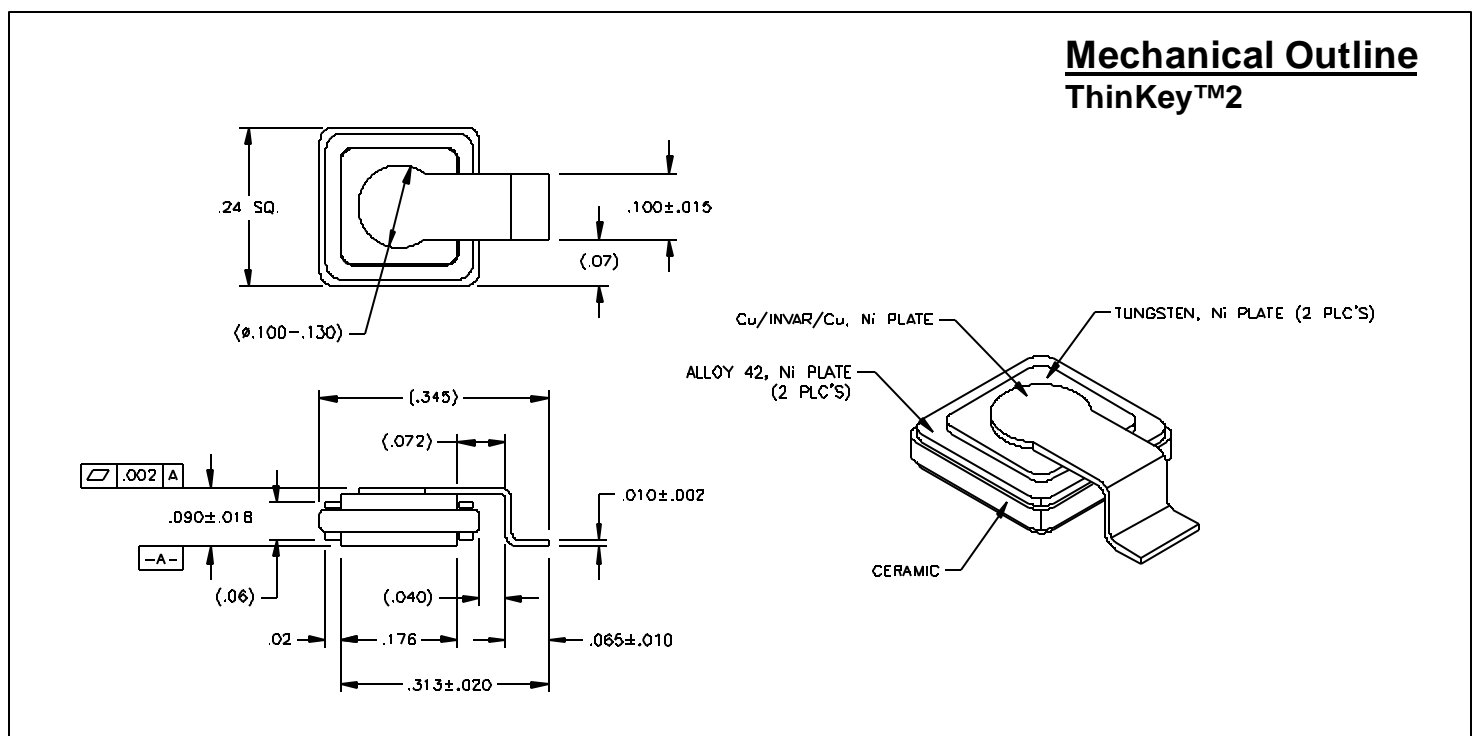
**LOW VOLTAGE**  
**DROP SCHOTTKY**  
**DIODE**

**Features**

- Tungsten/Platinum schottky barrier for very low VF
- 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, 1N6792) and reverse polarity (strap-to-cathode: 1N6792R)

**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, $T_c \leq 145^\circ\text{C}$	$I_{F(ave)}$	25	Amps
derating, forward current, $T_c \geq 145^\circ\text{C}$	$di_F/dT$	(3.3)	Amps/ $^\circ\text{C}$
Nonrepetitive Peak Surge Current, $t_p = 8.3$ ms, half-sinewave	$I_{FSM}$	125	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:	$\theta_{JC}$	1.25 tdb	$^\circ\text{C/W}$
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**Electrical Parameters**

DESCRIPTION	SYMBOL	CONDITIONS	MIN	TYP.	MAX	UNIT
Reverse (Leakage) Current	IR <sub>25</sub>	VR= 45 Vdc, Tc= 25°C		300	1000	μA
	IR <sub>125</sub>	VR= 45 Vdc, Tc= 125°C		100	150	mA
Forward Voltage pulse test, pw= 300 μs d/c≤ 2%	VF1	IF= 5A, Tc= 25°C		375	475	mV
	VF2	IF= 10A, Tc= 25°C		430	520	mV
	VF3	IF= 20A, Tc= 25°C		510	610	mV
	VF4	IF= 50A, Tc= 25°C		740		mV
	VF5	IF= 10A, Tc= -55°C		480	580	mV
	VF6	IF= 10A, Tc= 125°C		360		mV
Junction Capacitance	Cj1	VR= 10 Vdc		525	600	pF
	Cj2	VR= 5 Vdc		725		pF
Breakdown Voltage	BVR	IR= 1 mA, Tc= 25°C		55		V
		IR= 1 mA, Tc= -55°C	45	50		V