Sidac High Voltage Bilateral Triggers

...bi-directional devices designed for direct interface with the ac power line. Upon reaching the breakover voltage in each direction, the device switches from a blocking state to a low voltage on-state. Conduction will continue like an SCR until the main terminal current drops below the holding current. The plastic axial lead package provides high pulse current capability at low cost. Glass passivation insures reliable operation. Applications are:

- High Pressure Sodium Vapor Lighting
- Strobes and Flashers
- Ignitors
- High Voltage Regulators
- Pulse Generators
- Ordering Information:
 - Shipped in Tape & Reel Add "RL" suffix to device number, i.e. MKP1V120RL

MKP1V120 MKP1V130 MKP1V160







10TOROLA

MAXIMUM RATINGS (T_J = 25° C unless otherwise noted)

Rating	Symbol	Мах	Unit	
Off-State Repetitive Voltage	VDRM	± 90	Volts	
On–State Current RMS (T _L = 80°C, Lead Length = 3/8", conduction angle = 180°, 60 Hz Sine Wave)	^I T(RMS)	0.9	Amp	
On-State Surge Current (Non-repetitive) (60 Hz One Cycle Sine Wave, Peak Value)	ITSM	4	Amps	
Operating Junction Temperature Range	Тј	-40 to +125	°C	
Storage Temperature Range	T _{stg}	-40 to +150	°C	
Lead Solder Temperature (Lead Length \ge 1/16" from Case, 10 s Max)	ТL	230	°C	
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THERMAL CHARACTERISTICS

Characteristic	Symbol	Мах	Unit
Thermal Resistance, Junction to Lead Lead Length = 3/8"	R _{θJL}	40	°C/W

MKP1V120 MKP1V130 MKP1V160

ELECTRICAL CHARACTERISTICS	$(T_C =$	25°C unless	otherwise	noted; both	directions)
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Characteristic	Symbol	Min	Тур	Max	Unit
Breakover Voltage MKP1V120 MKP1V130 MKP1V160	VBO	110 120 150		130 140 170	Volts
Repetitive Peak Off–State Current (60 Hz Sine Wave, $V_D = 90V$) $T_J = 125^{\circ}C$	IDRM		_	5 50	μΑ
Forward "On" Voltage (I _{TM} = 1 A Peak)	VTM	_	1.3	1.5	Volts
Dynamic Holding Current (60 Hz Sine wave; $R_L = 100\Omega$)	Ч	_	—	100	mA
Switching Resistance	RS	0.1	—	—	kΩ
Breakover Current	IBO	—	—	200	μA
Rate-of-Change of On-State Current MKP1V120, 130, 160	di/dt	_	90	_	A/µs



Figure 1. Maximum Lead Temperature



Figure 2. Maximum Ambient Temperature



Figure 3. Typical On–State Voltage

Figure 4. Power Dissipation

MKP1V120 MKP1V130 MKP1V160



THERMAL CHARACTERISTICS

Figure 5. Thermal Response

TYPICAL CHARACTERISTICS



Figure 6. Breakover Voltage



Figure 8. Pulse Rating Curve



Figure 7. Holding Current



Figure 9. V–I Characteristics

PACKAGE DIMENSIONS



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