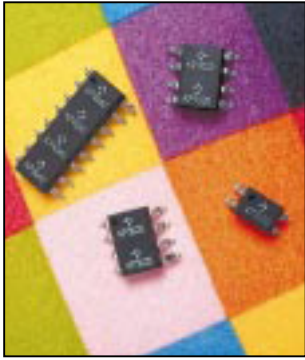




**cosmo**



The latest comprehensive data to fully support these parts is readily available.

### FUNCTIONAL EQUIVALENTS

OLD	NEW	
<b>COSMO</b>	<b>COSMO</b>	<b>SHARP</b>
KP1010	KPC817	PC817
KP1020	KPC827	PC827
KP1040	KPC847	PC847
KP2010	KPC4N35	PC4N35
KP3010	KPC814	PC814
KP3020	KPC824	PC824
KP3040	KPC844	PC844
KP4010	KPC852	PC852
KP4020	KPC8D52	PC8D52
KP4040	KPC8Q52	PC8Q52
KP5010	KPC725V	PC725V
KP6010	KPC733	PC733
KP7010	KPC933	PC933
KP7110	KPC932	PC932

CHECK DATA & OUTLINE BEFORE ORDERING

## OPTO-COUPLERS

### KP SERIES

- A DIVERSE RANGE OF OPTO-COUPLERS, OFFERING 5,000V RMS ISOLATION
- MINIMUM 60% CURRENT TRANSFER RATIO, 600% FOR DARLINGTON OUTPUT
- PARTS SELECTED ACCORDING TO CURRENT TRANSFER RATIO
- FROM 4 TO 16 PIN SMD PACKAGE WITH 2.54mm PITCH
- KPC8x7: 1 TO 4 CHANNELS, DC INPUT, OPEN COLLECTOR OUTPUT
- KPC4N35: 1 CHANNEL, DC INPUT, BASE CONNECTION TO OPEN COLLECTOR OUTPUT
- KPC8x4: 1 TO 4 CHANNELS, AC INPUT, OPEN COLLECTOR OUTPUT
- KPC8x52: 1 TO 4 CHANNELS, DC INPUT, OPEN COLLECTOR DARLINGTON OUTPUT
- KPC725V: 1 CHANNEL, DC INPUT, BASE CONNECTION TO OPEN COLLECTOR DARLINGTON OUTPUT
- KPC733: 1 CHANNEL, AC INPUT, BASE CONNECTION TO OPEN COLLECTOR OUTPUT
- KPC933: 1 CHANNEL, DC INPUT, AMPLIFIED OUTPUT WITH HYSTERESIS, BUILT IN PULL-UP RESISTOR GIVING TTL AND LS TTL COMPATIBLE OUTPUT
- FUNCTIONALLY EQUIVALENT TO INDUSTRY STANDARD PARTS FROM MOTOROLA, TOSHIBA, GE, SIEMENS SFH6xxx SERIES, TELEFUNKEN, TEXAS INSTRUMENTS, HP AND NEC

### ABSOLUTE MAXIMUM RATINGS

General	Transistor, Darlington	KPC933
Total Power Dissipation	200mW	170mW
Isolation Voltage, 1 min	5,000Vrms	5,000Vrms
Operating Temperature	-30 to +100°C	-25 to +85°C
Storage Temperature	-55 to +125°C	-40 to +125°C
<b>Input</b>	<b>DC</b>	<b>AC</b>
Forward Current	50mA	±50mA
Peak Forward Current	1A	±1A
Reverse Voltage	6V	6V
Power Dissipation	70mW	70mW
<b>Output</b>	<b>Transistor</b>	<b>Darlington</b>
Collector-Emitter Voltage	60V	300V
Collector Current	50mA	150mA
Collector Power Dissipation	150mW	200mW
<b>KPC933 Output</b>	<b>Specification</b>	
Output Current	50mA	
Power Dissipation	150mW	

### ELECTRO-OPTIC CHARACTERISTICS

Input	Parameter	Conditions
Forward Voltage	1.4V max	I <sub>F</sub> = 20mA DC or ±20mA AC
Peak Forward Voltage	3.5V max	I <sub>FM</sub> = 0.5A DC or ±0.5A AC
<b>Output</b>	<b>Parameter</b>	<b>Conditions</b>
Isolation Resistance	50GΩ min	DC500V
Floating Capacitance	1.0pF max	V = 0, f = 1MHz
C - E Saturation Voltage, Transistor	0.3V max	I <sub>F</sub> = 20mA, I <sub>C</sub> = 1mA
C - E Saturation Voltage, Darlington	1.5V max	I <sub>F</sub> = 20mA, I <sub>C</sub> = 5mA
Cut-Off Frequency, Transistor	80KHz typ	V <sub>CE</sub> = 5V, I <sub>C</sub> = 2mA, R <sub>L</sub> = 100Ω
Cut-Off Frequency, Darlington	7KHz typ	V <sub>CE</sub> = 5V, I <sub>C</sub> = 2mA, R <sub>L</sub> = 100Ω
<b>KPC933 Output</b>	<b>Parameter</b>	<b>Conditions</b>
Operating Supply Voltage	4.5V min, 17V max	
Low Level Output Voltage	0.4V max	I <sub>OL</sub> = 16mA, V <sub>CC</sub> = 5V, I <sub>F</sub> = 0
High Level Output Voltage	3.5V min	V <sub>CC</sub> = 5V, I <sub>F</sub> = 1mA
High to Low Threshold I/P Current	0.1mA min	V <sub>CC</sub> = 5V, R <sub>L</sub> = 280Ω
Low to High Threshold I/P Current	1.0mA max	V <sub>CC</sub> = 5V, R <sub>L</sub> = 280Ω
Hysteresis	0.7	V <sub>CC</sub> = 5V, R <sub>L</sub> = 280Ω
Isolation Resistance	50GΩ min	DC500V

### SQP - SMALL QUANTITY PRICES

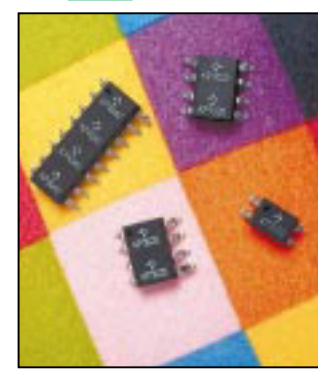
A typical unit price for a quantity of 100 pieces. It will vary (up or down) depending on the time, order value etc. Call us for your update.

## OPTO-COUPLERS

### KP SERIES SPECIFICATIONS

Part Number	No. Channels	CTR Min %	CTR Max %	SQP £ ea.
<b>DC I/P, Transistor O/P</b>				
KPC817SA	1	60	160	0.16
KPC817SB	1	130	260	0.16
KPC817SC	1	200	400	0.16
KPC817SD	1	300	600	0.16
KPC817SE	1	60	600	0.16
KPC827SA	2	60	160	0.34
KPC827SB	2	130	260	0.34
KPC827SC	2	200	400	0.34
KPC827SD	2	300	600	0.34
KPC827SE	2	60	600	0.34
KPC847SA	4	60	160	0.70
KPC847SB	4	130	260	0.70
KPC847SC	4	200	400	0.70
KPC847SD	4	300	600	0.70
KPC847SE	4	60	600	0.70
<b>DC I/P, Transistor O/P w. Base</b>				
KPC4N35SA	1	60	160	0.16
KPC4N35SB	1	130	260	0.16
KPC4N35SC	1	200	400	0.16
KPC4N35SD	1	300	600	0.16
KPC4N35SE	1	60	600	0.16
<b>AC I/P, Transistor O/P</b>				
KPC814SA	1	60	600	0.20
KPC814SB	1	130	300	0.20
KPC824SA	2	60	600	0.40
KPC824SB	2	130	300	0.40
KPC844SA	4	60	600	0.80
KPC844SB	4	130	300	0.80

Part Number	No. Channels	CTR Min %	CTR Max %	SQP £ ea.
<b>DC I/P, Darlington O/P</b>				
KPC852SA	1	600	2,000	0.28
KPC852SB	1	1,500	4,000	0.28
KPC852SC	1	3,000	6,000	0.28
KPC852SD	1	5,000	9,000	0.28
KPC852SE	1	600	9,000	0.28
KPC8D52SA	2	600	2,000	0.56
KPC8D52SB	2	1,500	4,000	0.56
KPC8D52SC	2	3,000	6,000	0.56
KPC8D52SD	2	5,000	9,000	0.56
KPC8D52SE	2	600	9,000	0.56
KPC8Q52SA	4	600	2,000	1.20
KPC8Q52SB	4	1,500	4,000	1.20
KPC8Q52SC	4	3,000	6,000	1.20
KPC8Q52SD	4	5,000	9,000	1.20
KPC8Q52SE	4	600	9,000	1.20
<b>DC I/P, Darlington O/P w. Base</b>				
KPC725VSA	1	600	2,000	0.30
KPC725VSB	1	1,500	4,000	0.30
KPC725VSC	1	3,000	6,000	0.30
KPC725VSD	1	5,000	9,000	0.30
KPC725VSE	1	600	9,000	0.30
<b>AC I/P, Transistor O/P w. Base</b>				
KPC733SA	1	60	600	0.20
KPC733SB	1	60	300	0.20
<b>DC I/P, TTL &amp; LS TTL O/P</b>				
KPC933SA	1	-	-	0.46



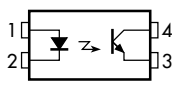
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### FUNCTIONAL EQUIVALENTS

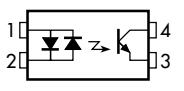
OLD	NEW	SHARP
COSMO KP1010	COSMO KPC817	SHARP PC817
KP1020	KPC827	PC827
KP1040	KPC847	PC847
KP2010	KPC4N35	PC4N35
KP3010	KPC814	PC814
KP3020	KPC824	PC824
KP3040	KPC844	PC844
KP4010	KPC852	PC852
KP4020	KPC8D52	PC8D52
KP4040	KPC8Q52	PC8Q52
KP5010	KPC725V	PC725V
KP6010	KPC733	PC733
KP7010	KPC933	PC933
KP7110	KPC932	PC932

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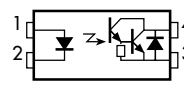
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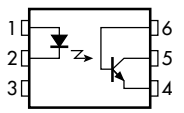
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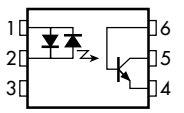
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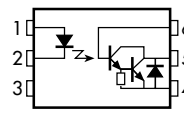
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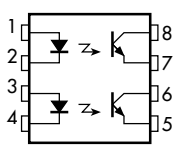
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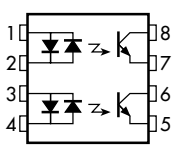
#### KPC725V



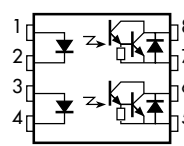
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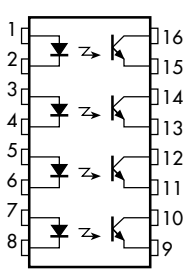
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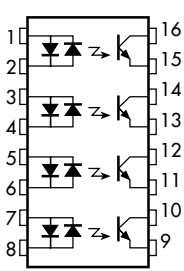
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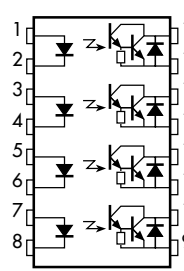
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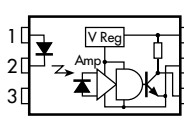
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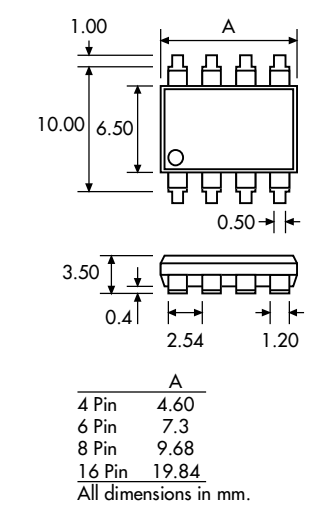
#### KPC8Q52



#### KPC933



### DIMENSIONS



### SQP - SMALL QUANTITY PRICES

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