



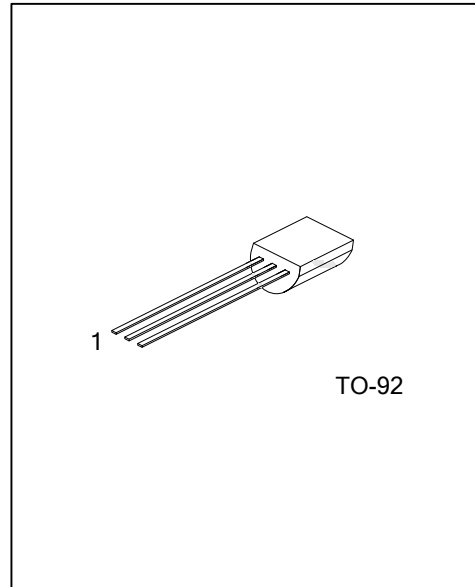
**PCR406**

**SCR**

**SCRS**

■ **DESCRIPTION**

The UTC **PCR406** silicon controlled rectifiers are high performance planar diffused PNP devices. These parts are intended for low cost high volume applications.



■ **ORDERING INFORMATION**

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
PCR406L-5-x-T92-B	PCR406G-5-x-T92-B	TO-92	K	G	A	Tape Box
PCR406L-5-x-T92-K	PCR406G-5-x-T92-K	TO-92	K	G	A	Bulk
PCR406L-6-x-T92-B	PCR406G-6-x-T92-B	TO-92	K	G	A	Tape Box
PCR406L-6-x-T92-K	PCR406G-6-x-T92-K	TO-92	K	G	A	Bulk

Note: Pin Assignment: K: Cathode G: Gate A: Anode

<p>PCR406G-5-x-T92-B</p> <ul style="list-style-type: none"> <li>(1) Packing Type</li> <li>(2) Package Type</li> <li>(3) Rank</li> <li>(4) Green Package</li> </ul>	<ul style="list-style-type: none"> <li>(1) B: Tape Box, K: Bulk</li> <li>(2) T92: TO-92</li> <li>(3) x: refer to Classification of I<sub>GT</sub></li> <li>(4) G: Halogen Free and Lead Free, L: Lead Free</li> </ul>
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■ **MARKING**

PCR406-5	PCR406-6

■ ABSOLUTE MAXIMUM RATING

PARAMETER		SYMBOL	RATINGS	UNIT
Repetitive Peak Off-State Voltage ( $T_{OPR} = -40 \sim +125^{\circ}C$ , $R_{GK} = 1k\Omega$ )	PCR406-5	$V_{DRM}$	300	V
	PCR406-6		400	V
On State Current ( $T_C=40^{\circ}C$ )		$I_{T(RMS)}$	0.8	A
Average On State Current (Half Cycle=180, $T_C=40^{\circ}C$ )		$I_{T(AV)}$	0.5	A
Peak Reverse Gate Voltage ( $I_{GR}=10\mu A$ )		$V_{GRM}$	1	V
Peak Gate Current (10us Max.)		$I_{GM}$	0.1	A
Gate Dissipation (20ms Max.)		$P_{G(AV)}$	150	mW
Operating Temperature		$T_{OPR}$	-40 ~ +125	$^{\circ}C$
Storage Temperature		$T_{STG}$	-40 ~ +125	$^{\circ}C$

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS ( $T_A=25^{\circ}C$ , unless otherwise specified)

PARAMETER		SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Off State Leakage Current	$T_J=125^{\circ}C$	$I_{DRM}$	$V_{DRM}(R_{GK}=1K\Omega)$			0.1	mA
	$T_J=25^{\circ}C$		$V_{DRM}(R_{GK}=1K\Omega)$			1.0	$\mu A$
On State Voltage		$V_T$	$I_T=0.4A$			1.4	V
			$I_T=0.8A$			2.2	V
On State Threshold Voltage	$T_J=125^{\circ}C$	$V_{T(TO)}$				0.95	V
On State Slops Resistance	$T_J=125^{\circ}C$	$R_t$				600	m
Gate Trigger Current		$I_{GT}$	$V_D=7V$			200	$\mu A$
Gate Trigger Voltage		$V_{GT}$	$V_D=7V$			0.8	V
Holding Current		$I_H$	$R_{GK}=1K\Omega$			5	mA
Latching Current		$I_L$	$R_{GK}=1K\Omega$			6	mA
Gate Controlled Delay Time		$T_{GD}$	$I_G=10mA$ , $dI_G/dt=0.1A/\mu s$ ,			2.2	$\mu s$
Commutated Turn-Off Time	$T_J=85^{\circ}C$	$T_G$	$V_D=0.67 \times V_{DRM}$ , $V_R=35V$ , $I_T=I_{T(AV)}$			200	$\mu s$

■ CLASSIFICATION OF  $I_{GT}$

RANK	B	C	AA	AB	AC	AD
RANGE	50-100 $\mu A$	100-200 $\mu A$	8-15 $\mu A$	15-20 $\mu A$	20-25 $\mu A$	25-50 $\mu A$

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