



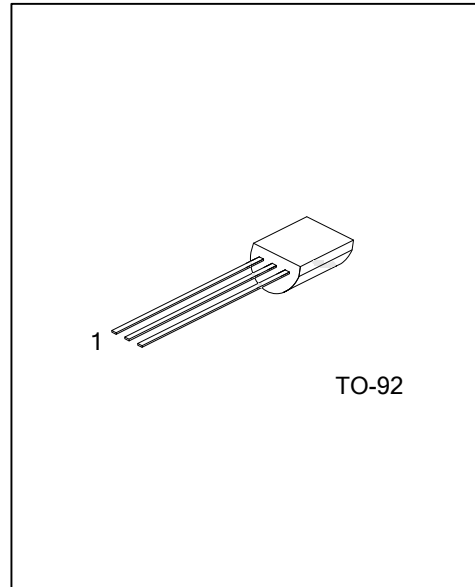
PCR406

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>	<p>(1) B: Tape Box, K: Bulk (2) T92: TO-92 (3) x: refer to Classification of I_{GT} (4) G: Halogen Free and Lead Free, L: Lead Free</p>
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■ **MARKING**

PCR406-5	PCR406-6

■ ABSOLUTE MAXIMUM RATING

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

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

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

■ CLASSIFICATION OF I_{GT}

RANK	B	C	AA	AB	AC	AD
RANGE	50-100 μA	100-200 μA	8-15 μA	15-20 μA	20-25 μA	25-50 μA

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