



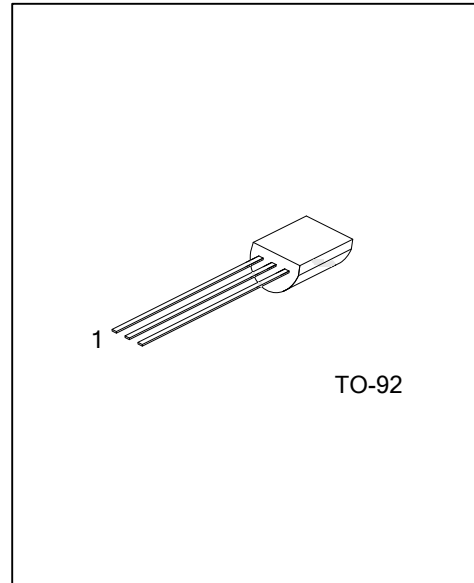
PCR406

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
<p>UTC PCR406□ -5 □□□ 1</p> <p>L: Lead Free G: Halogen Free Date Code</p>	<p>UTC PCR406□ -6 □□□ 1</p> <p>L: Lead Free G: Halogen Free Date Code</p>

■ ABSOLUTE MAXIMUM RATING

PARAMETER	SYMBOL	RATINGS	UNIT
Repetitive Peak Off-State Voltage ($T_{OPR} = -40 \sim +125^{\circ}\text{C}$, $R_{GK} = 1\text{k}\Omega$)	V_{DRM}	300	V
		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	I_{DRM}	$V_{DRM}(R_{GK}=1\text{k}\Omega)$			0.1	mA
		$V_{DRM}(R_{GK}=1\text{k}\Omega)$			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	$V_{T(TO)}$				0.95	V
On State Slops Resistance	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_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	A	B	C
RANGE	10-60 μA	50-100 μA	100-200 μA