



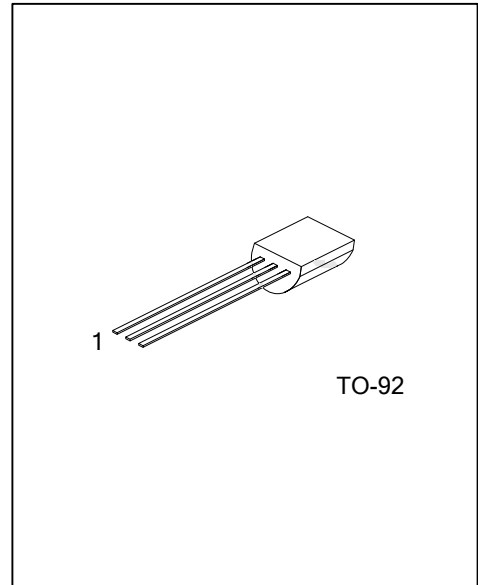
PCR406

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>PCR406L-5-x-T92-B</p> <ul style="list-style-type: none"> (1) Packing Type (2) Package Type (3) Rank (4) Green Package 	<ul style="list-style-type: none"> (1) B: Tape Box, K: Bulk (2) T92: TO-92 (3) x: refer to Classification of I_{GT} (4) L: Lead Free, G: Halogen Free and Lead Free
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MARKING

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

■ ABSOLUTE MAXIMUM RATING

PARAMETER		SYMBOL	RATINGS	UNIT
Repetitive Peak Off-State Voltage ($T_{OPR} = -40 \sim +125^{\circ}\text{C}$, $R_{GK} = 1\text{k}\Omega$)	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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