



ELECTRONICS, INC.
 44 FARRAND STREET
 BLOOMFIELD, NJ 07003
 (973) 748-5089

NTE239 Silicon Controlled Switch (SCS)

Description:

The NTE239 is a silicon controlled switch in a TO72 type package designed for use as a driver for a numerical indicator tube and switching applications.

Features:

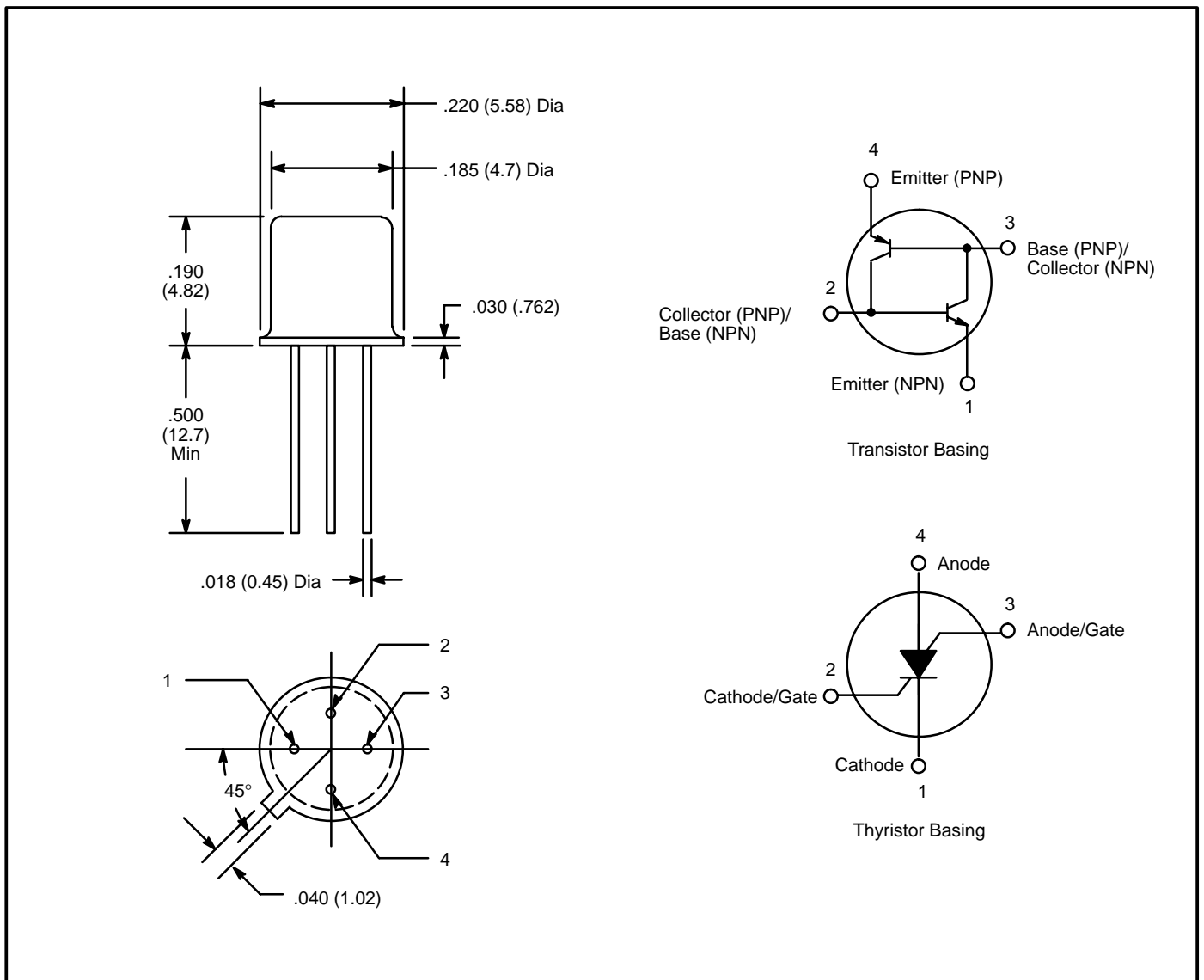
- Selective Breakover Voltage
- Low ON Voltage

Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Collector–Base Voltage, V_{CBO}	
NPN	70V
PNP	–70V
Collector–Emitter Voltage (NPN Only, $R_{BE} = 10\text{k}\Omega$), V_{CER}	70V
Collector–Emitter Voltage (PNP), V_{CEO}	–70V
Emitter–Base Voltage, V_{EBO}	
NPN	5V
PNP	–70V
Emitter Current, I_E	
NPN	–100mA
PNP	100mA
Peak Emitter Current ($t_p \leq 1\text{ms}$, $\delta = 0.05$), I_{EM}	
NPN	–500mA
PNP	500mA
Collector Current (NPN Only), I_C	
Continuous	50mA
Peak	100mA
Power Dissipation, P_D	250mW
Operating Junction Temperature, T_J	+150°C
Storage Temperature Range, T_{stg}	–55° to +175°C

Electrical Characteristics: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
NPN Transistor						
Collector Cutoff Current	I_{CER}	$V_{CE} = 70\text{V}, R_{BE} = 10\text{k}\Omega$	–	10	100	nA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 5\text{V}, I_C = 0$	–	30	1000	nA
DC Current Gain	h_{FE}	$V_{CE} = 2\text{V}, I_C = 10\text{mA}$	50	180	–	
PNP Transistor						
Emitter Cutoff Current	$-I_{EBO}$	$-V_{EB} = 70\text{V}, I_C = 0$	–	0.05	100	nA
DC Current Gain	h_{FE}	$V_{CB} = 0, I_E = 1\text{mA}$	0.72	–	2.5	
Combined Device						
Anode–Cathode Voltage	V_{AK}	$I_A = 50\text{mA}, I_C = 0, R_{BE} = 10\text{k}\Omega$	–	1.05	1.4	V
Holding Current	I_H	$R_{BE} = 10\text{k}\Omega, I_C = 10\text{mA}, -V_{BB} = 2\text{V}$	0.1	0.5	1.0	mA
Turn–Off Time	t_{off}	$R_{BE} = 10\text{k}\Omega$	–	6	12	μs



This datasheet has been download from:

www.datasheetcatalog.com

Datasheets for electronics components.