

# New Jersey Semi-Conductor Products, Inc.

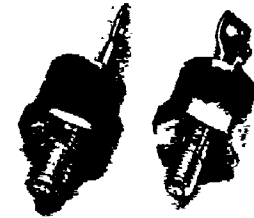
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V <sub>RSM</sub>	V <sub>RRM</sub> V <sub>DRM</sub>	(dv/dt) <sub>cr</sub>	I <sub>T</sub> RMS (maximum values for continuous operation)	
			63 A	78 A
V	V	V/μs	I <sub>TAV</sub> (sin. 180; T <sub>case</sub> = ... °C)	
			40 A (80 °C)	50 A (78 °C)
500	400	200	<b>SKT 40/04 C</b>	<b>SKT 50/06 C*</b>
700	600	200	<b>SKT 40/06 C</b>	
900	800	200	<b>SKT 40/08 C</b>	<b>SKT 50/12 C*</b>
1300	1200	200	<b>SKT 40/12 C*</b>	
		1000	<b>SKT 40/12 E</b>	
1500	1400	1000	<b>SKT 40/14 E</b>	<b>SKT 50/16 E*</b>
1700	1600	1000	<b>SKT 40/16 E*</b>	

## Thyristors

**SKT 40**  
**SKT 50**



Symbol	Conditions	SKT 40	SKT 50
I <sub>TAV</sub>	sin. 180; T <sub>case</sub> = 85 °C	38 A	45 A
I <sub>TSM</sub>	T <sub>vj</sub> = 25 °C	700 A	1050 A
	T <sub>vj</sub> = 130 °C	600 A	900 A
i <sup>2</sup> t	T <sub>vj</sub> = 25 °C	2500 A <sup>2</sup> s	5000 A <sup>2</sup> s
	T <sub>vj</sub> = 130 °C	1800 A <sup>2</sup> s	4000 A <sup>2</sup> s
t <sub>gd</sub>	T <sub>vj</sub> = 25 °C; I <sub>G</sub> = 1 A; di <sub>G</sub> /dt = 1 A/μs	typ. 1 μs	
t <sub>gr</sub>	V <sub>D</sub> = 0,67 · V <sub>DRM</sub>	typ. 1,5 μs	
(di/dt) <sub>cr</sub>	f = 50 ... 60 Hz	50 A/μs	
I <sub>H</sub>	T <sub>vj</sub> = 25 °C; typ./max.	100 mA/100 mA	
I <sub>L</sub>	T <sub>vj</sub> = 25 °C; R <sub>G</sub> = 33 Ω; typ./max.	250 mA/400 mA	
t <sub>q</sub>	T <sub>vj</sub> = 130 °C; typ.	100 μs	
V <sub>T</sub>	T <sub>vj</sub> = 25 °C; I <sub>T</sub> = 120 A; max.	1,95 V	1,8 V
V <sub>T(TO)</sub>	T <sub>vj</sub> = 130 °C	1,0 V	1,1 V
r <sub>T</sub>	T <sub>vj</sub> = 130 °C	9 mΩ	5 mΩ
I <sub>DD</sub> , I <sub>RD</sub>	T <sub>vj</sub> = 130 °C; V <sub>DD</sub> = V <sub>DRM</sub> ; V <sub>RD</sub> = V <sub>RRM</sub>	8 mA	8 mA
V <sub>GT</sub>	T <sub>vj</sub> = 25 °C	3 V	
I <sub>GT</sub>	T <sub>vj</sub> = 25 °C	150 mA	
V <sub>GD</sub>	T <sub>vj</sub> = 130 °C	0,25 V	
I <sub>GD</sub>	T <sub>vj</sub> = 130 °C	5 mA	
R <sub>thjc</sub>	cont.	0,60 °C/W	0,57 °C/W
	sin. 180	0,66 °C/W	0,60 °C/W
	rec. 120	0,70 °C/W	0,65 °C/W
R <sub>thch</sub>		0,20 °C/W	
T <sub>vj</sub>		-40 ... +130 °C	
T <sub>stg</sub>		-55 ... +150 °C	
M	SI units	4 Nm (UNF: 2,5 Nm)	
	US units	35 lb. in (UNF: 22 lb. in.)	
a		5 · 9,81 m/s <sup>2</sup>	
w		2,2 g	
Case		B 3	

## Features

- Hermetic metal cases with glass insulators
- Threaded studs UNF 1/4-28
- International standard cases

## Typical Applications

- DC motor control (e. g. for machine tools)
- Controlled rectifiers (e. g. for battery charging)
- AC controllers (e. g. for temperature control)