Ampera

**Note 4:** Test conditions: IDC, RL = 12

**Note 5:** Switching from VDRM = 1000V

**Note 6:** In addition to 0.2F and 20snubber circuit

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**Features:**

- All diffused silicone junctions.
- Standard recovery time for phase control applications.
- Module package.
- Thick copper base plate.
- Isolated cooling, rated up to 3500 VRMS
- Easy mounting to heat sink
- Heat sink grounded.

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### Voltage

**Parameter** | **Symbol** | **Rating** | **Units**
--- | --- | --- | ---
Maximum Repetitive Off-State Voltage & Maximum Repetitive Reverse Voltage | $V_{\text{DRM}}$, $V_{\text{RVM}}$ | 1200 ~ 1800 | Volts
Maximum non repetitive Surge of Reverse Voltage | $V_{\text{VRM}}$, $V_{\text{VRM} + 100}$ | 1200 ~ 1800 | Volts
Critical rate of rising of off-state Voltage, Linear to 80% of $V_{\text{VRM}}$ | $dv/dt$ | 500 | V/μs

Note 1: TJ = 25°C. Note 2: TJ = 125°C.

Specifying voltage: 1400V, PSKT250N14 1600V, PSKT250N16 Above 1800V inquire about availability.

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### Gate

**Parameter** | **Symbol** | **Rating** | **Units**
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Gate Trigger Voltage | $V_{\text{GT}}$ | 2.8 ~ 3.5 | Volts
Maximum Gate Trigger Current | $I_{\text{GTM}}$, $I_{\text{GTM}}$/ | 500 | mA
Minimum Forward Current to Latch on-state | $I_{\text{FM}}$ | 500 | mA
Maximum permissible Gate Voltage not to Trigger | $V_{\text{GTM}}$, $V_{\text{GTM}}$/ | 250 | mV
Maximum permissible Gate Current not to Trigger | $I_{\text{GTM}}$, $I_{\text{GTM}}}$/ | 5 | mA
Maximum peak non repetitive Gate Voltage | $V_{\text{GM}}$ | 8 | Volts
Maximum Negative Gate Voltage | $V_{\text{GM}}$ | 5 | Volts
Maximum non repetitive Gate Current | $I_{\text{GTM}}$, $I_{\text{GTM}}$/ | 3 | Amperes
Average Gate Power (recommended) | $P_{\text{GAVE}}$ | 0.9 ~ 2.0 | Watts

Note 1: TJ = 25°C. Note 2: TJ = 125°C.
Note 3: Rectangular pulse, $t_b \leq 8.3$ ms.
Note 4: Rectangular $-V_{\text{DC}}$ pulse, $t_b \leq 8.3$ ms.
Note 5: Test conditions: IDC, RL = 12Ω.

### Amperage

**Parameter** | **Symbol** | **Rating** | **Units**
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Maximum, Average, On-state Current | $I_{\text{ON(AVE)}}$, $I_{\text{ON(AVE)}}$/ | 250 | Amperes
Maximun, RMS, On-state Current | $I_{\text{RMS}}$, $I_{\text{RMS}}$/ | 395 | Amperes
Maximum non repetitive, Surge. On state, Current, with no reverse voltage reapplied | $I_{\text{TM}}$ | 0% $V_{\text{RMM}}$, 3.9 | kA
Maximum non repetitive, Surge, On state, Current, with maximum reverse voltage reapplied, | $I_{\text{TM}}$ | 100% $V_{\text{RMM}}$, 2.8 | kA
Critical rate of rising On-state Current, non repetitive | $dI/dt$ | 150 | A/μs
Holding Current | $I_{\text{H}}$ | 30 ~ 100 | mA
Maximum On State Voltage drop | $V_{\text{TM}}$ | 1.65 | V
Fuse's absolute maximum $f^2$t with no reverse voltage | $F_t$, 0% $V_{\text{RMM}}$ | 69 | kA
Fuse's absolute maximum $f^2$t with up to 80% of $V_{\text{RMM}}$ | $f^2$t, ≤ 80% $V_{\text{RMM}}$ | 48.8 | kA

Note 1: TJ = 25°C. Note 2: TJ = 125°C.
Note 3: 180°C Conduction, 60 Hz, Sinewave.
Note 4: Test conditions: IDC, RL = 12Ω.
Note 5: Switching from $V_{\text{DRM}}$ = 1000V.
Note 6: In addition to 0.2F and 20snubber circuit.