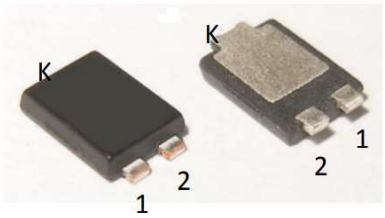
# Surface Mount Low VF Schottky Barrier Rectifier 60V Current 10A

## FEATURES AND BENEFITS

- Low power loss, high efficiency operation
- Low forward voltage drop
- Fast switching capability
- High forward surge capability
- Excellent High Temperature Stability

## MECHANICAL DATA

- Epoxy：UL94 V-0 rated flame retardant
- Case: TO-277 Package
- Terminals: Matte Tin annealed over copper
- Weight:




TO-277

| Primary Characteristic | |
|---|---|
| $I_O$ | 10A |
| $V_{RRM}$ | 60V |
| $I_{FSM}$ | 200A |
| $V_F$ Typical=3A $T_J$=125°C | 0.30V |
| $T_{jmax}$ | 150°C |

| Maximum Ratings (Ta=25°C unless otherwise specified) | | | |
|---|---|---|---|
| **Characteristics** | **Symbol** | **Value** | **Unit** |
| Peak Repetitive Reverse Voltage | $V_{RRM}$ | 60 | V |
| Working Peak Reverse Voltage | $V_{RWM}$ | 60 | V |
| DC Blocking Voltage | $V_{DC}$ | 60 | V |
| RMS Reverse Voltage | $V_{RMS}$ | 42 | V |
| Average Forward Rectified Current (per diode) | $I_O$ | 10 | Amps |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | $I_{FSM}$ | 200 | Amps |

| Electrical Characteristics (Ta=25°C unless otherwise specified ) | | | | | | |
|---|---|---|---|---|---|---|
| **Characteristics** | | | **Symbol** | **Typ.** | **Max.** | **Unit** |
| Forward Voltage Drop(1) | IF=3A | Ta=25°C | $V_F$ | 0.37 | | V |
| | IF=10A | Ta=25°C | $V_F$ | 0.52 | 0.55 | V |
| | IF=3A | Ta=125°C | $V_F$ | 0.30 | | V |
| | IF=10A | Ta=125°C | $V_F$ | 0.50 | | V |
| Reverse Current(2) | VR=60V | Ta=25°C | $I_R$ | 90 | 200 | μA |
| | VR=60V | Ta=125°C | $I_R$ | | 45 | mA |

Notes (1): Pulse test: 300μs pulse width, 1% duty cycle,

Notes (2): Pulse width ≦40ms

| THERMAL CHARACTERISTICS (TA = 25 °C unless otherwise noted) | | | |
|---|---|---|---|
| **Characteristics** | **Symbol** | **Value** | **Unit** |
| Typical Thermal Resistance, junction to Ambient | $R_{\theta JA}$ | 30 | °C/W |
| Operating Temperature Range ( in DC Mode) | $T_J$ | -65 to +150 | °C |
| Storage Temperature Range | $T_{STG}$ | -65 to +150 | °C |

Notes (3): FR-4 PCB, 2oz copper. Minimum recommended pad layout

## RATINGS AND CHARACTERISTICS CURVES

**Fig 1. Typical Forward Characteristics**

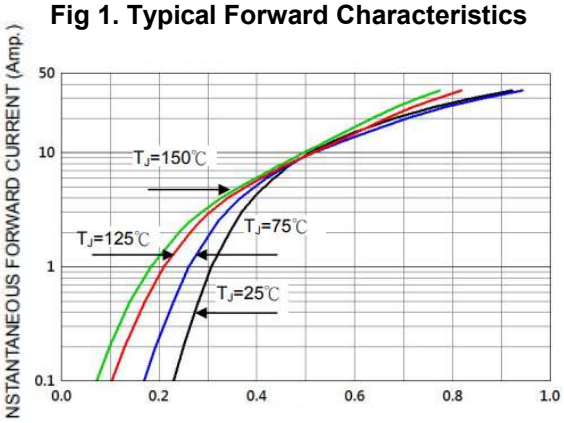



**Fig 2. Typical Reverse Characteristics**

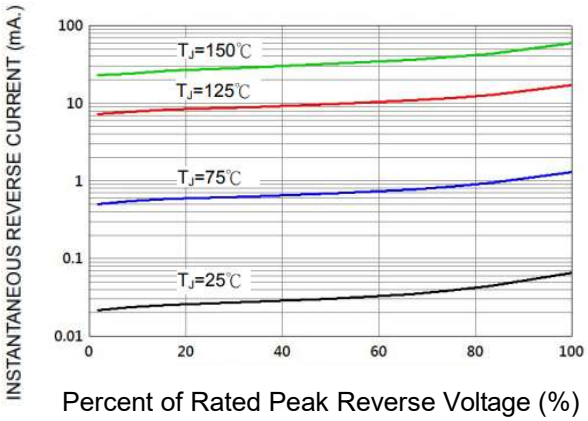



**Fig 3. Forward Current Derating Curve**

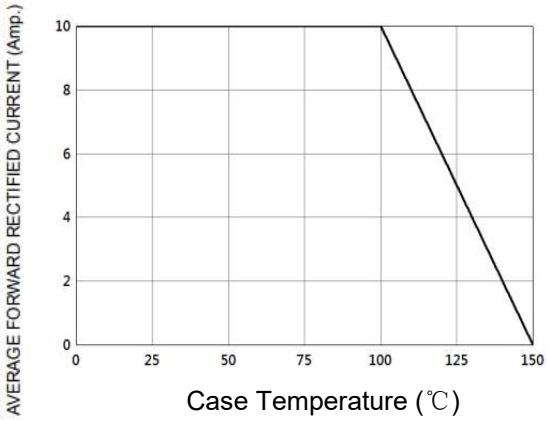
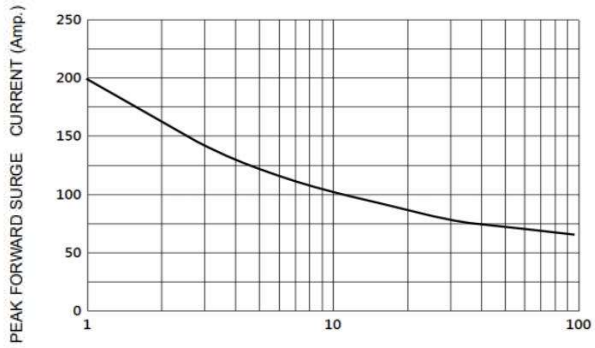
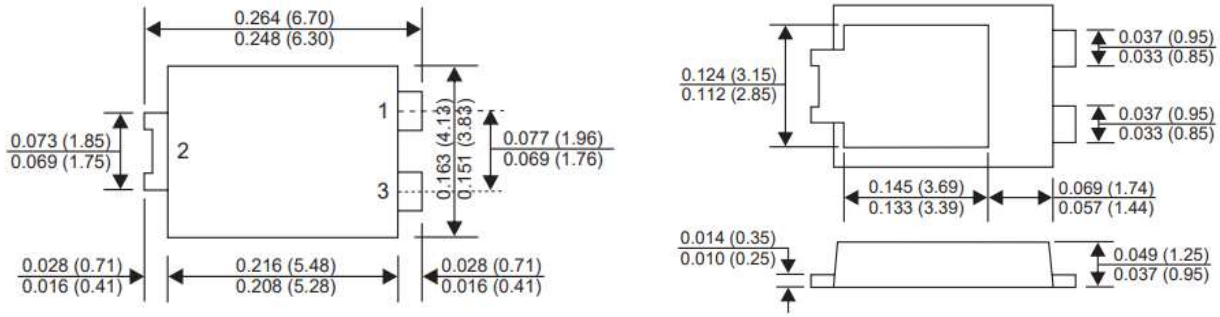



**Fig 4. Non-repetitive Forward Surge Current**



## Package Outline Dimensions (in millimeters)




## Marking Information

Series Name 康虹=

= Part Number Marking Code

=Product Tracking Code