沛倫股份有限公司
Compact Technology Corp.

S10U100CT

Trench MOS Schottky Rectifier

REVERSE VOLTAGE - 100 Volts
FORWARD CURRENT - 10.0 Amperes

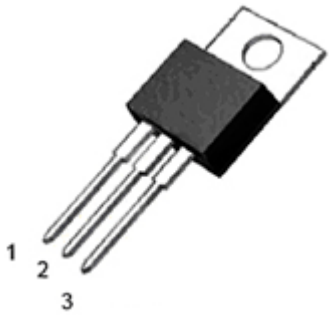
FEATURES

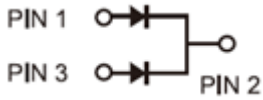
- Low power loss, high efficiency
- Low forward voltage drop
- High forward surge capability
- High frequency operation
- Excellent high temperature stability
- Trench MOS Schottky technology

MECHANICAL DATA

- Case: TO-220
- Polarity: As marked
- Weight: Approximated 1.86 grams

TO-220





MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Characteristics	Symbol	Value		Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100		V
RMS Reverse Voltage	V_{RMS}	70		V
Forward Voltage Drop	V_F	Typ.	Max.	V
I_F=3A (T_J=25℃)		0.59	-	
I_F=3A (T_J=125℃)		0.53	-	
I_F=5 A (T_J=25℃)		0.69	0.75	
I_F=5 A (T_J=125℃)		0.61	0.65	
Maximum Reverse Current at Rated V_{RRM}	I_R	Typ.	Max.	
T_J=25°C		5	50	μA
T_J=125°C		3	10	mA
Maximum Average Forward Rectified Current	I_O			A
Total device		10		
Per diode		5		
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	80		A
Peak Repetitive Reverse Current at tp=2 μs, 1 kHz,	I_{RRM}	1.0		A
Operating and StorageTemperature Range	T_J, T_{STG}	-65 to +150		°C

Rating and Characteristic Curves

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

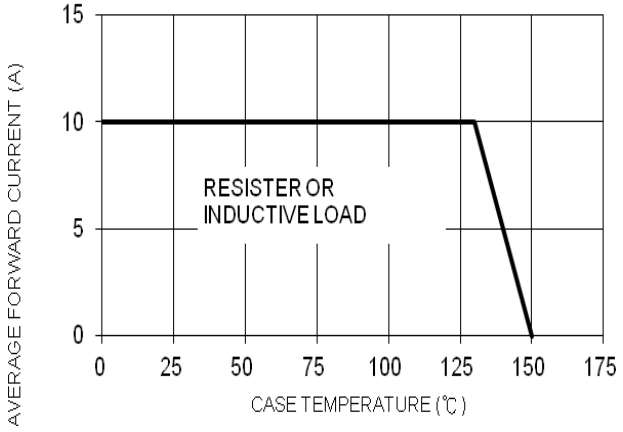


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

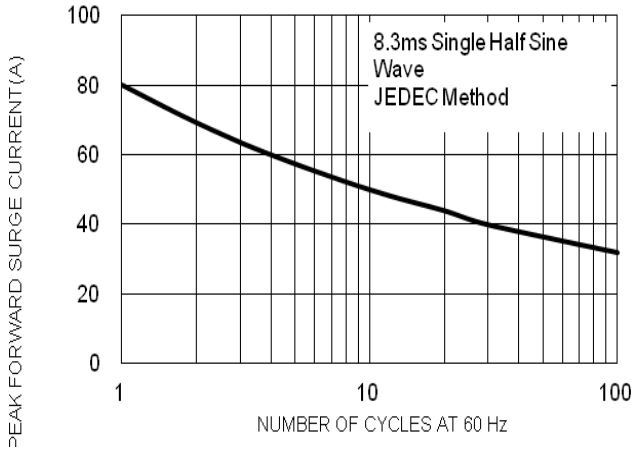


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

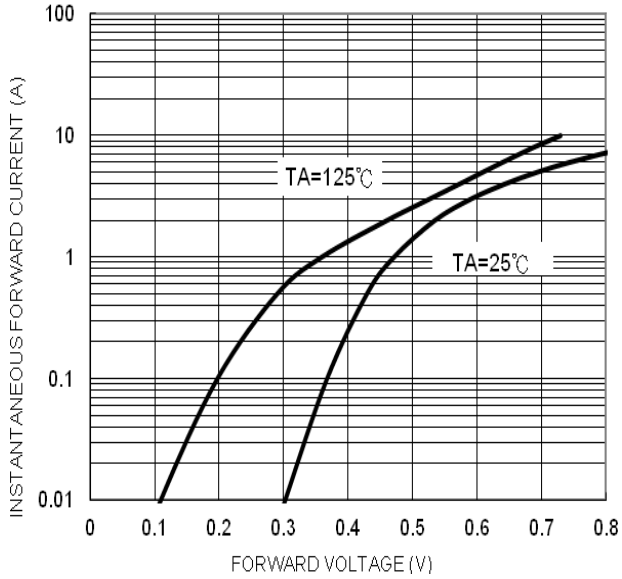
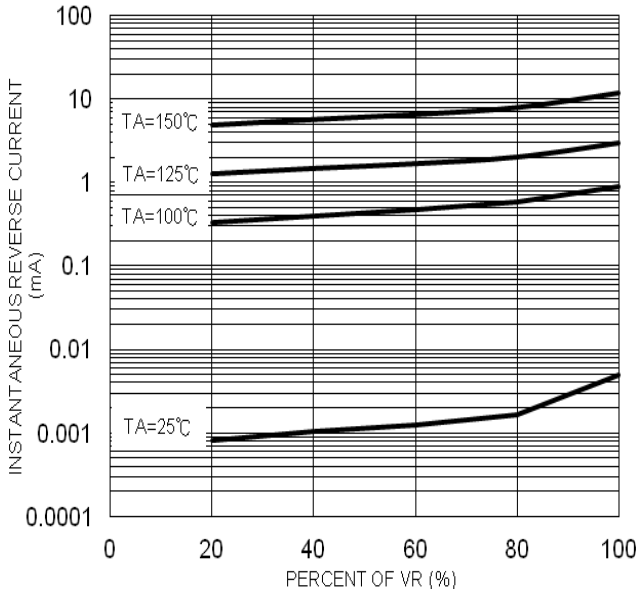



FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG