沛倫股份有限公司
Compact Technology Corp.

S10U45TS

Planar MOS SCHOTTKY RECTIFIERS

REVERSE VOLTAGE - **45** Volts
FORWARD CURRENT - **10.0** Amperes

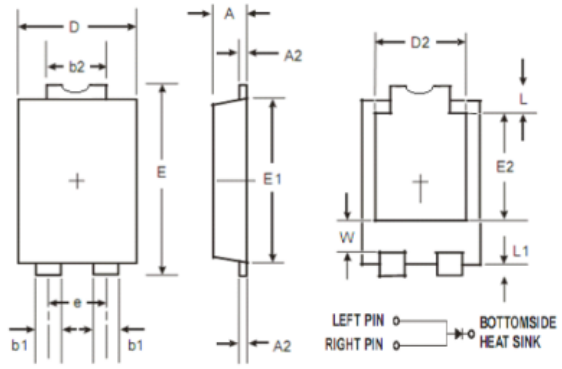
FEATURES

- Low power loss, high efficiency
- Low forward voltage drop
- High forward surge capability
- High frequency operation
- Excellent high temperature stability
- Planar MOS Schottky technology
- Suffix "H" indicates halogen free parts,

MECHANICAL DATA

- Case: TO-277
- Polarity : Color band denotes cathode
- Terminals: Pure tin plated, lead free
- Mounting position : Any

TO-277



NO	DIM(mm)	NO	DIM(mm)
A	1.25±0.1	e	1.84Typ.
A2	0.38±0.05	E1	5.3±0.1
b1	0.9±0.1	E2	3.5±0.1
b2	1.8±0.1	L	0.8±0.15
D	3.95±0.1	L1	0.6±0.1
D2	3.05 Typ.	W	1.3±0.2
E	6.5±0.1		

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}	45		V
Working Peak Reverse Voltage	V_{RWM}	45		V
Maximum DC Blocking Voltage	V_{DC}	45		V
RMS Reverse Voltage	V_{RMS}	31.5		V
Forward Voltage Drop (1) I_F=10A, T_J=25°C I =10A, T =125°C	V_F	Typ. 0.42 0.38	Max. 0.46 -	V
Maximum Reverse Current at Rated V_{RRM} T_J=25°C T =125°C	I_R	Typ. 120 35	Max. 300 50	μA mA
Maximum Average Forward Rectified Current	I_O	10		A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	280		A
Peak Repetitive Reverse C rrent at tp=2 μs, 1 kHz,	I_{RRM}	2.0		A
Voltage rate of change(Rated VR)	dv/dt	10,000		V/us
Operating Temperature Range	T_J	-65 to +150		°C
Storage Temperature Range	T_{STG}	-65 to +175		°C

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

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

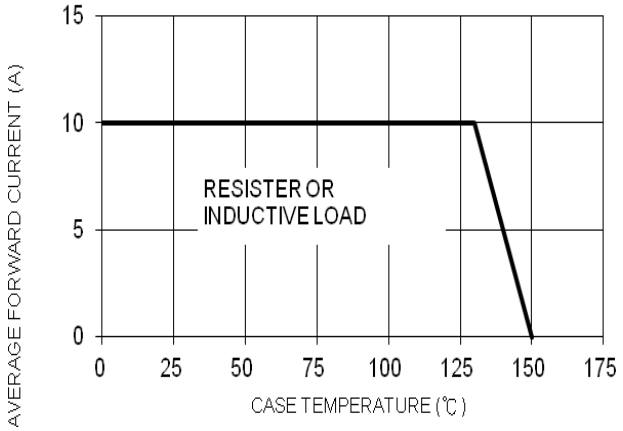


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

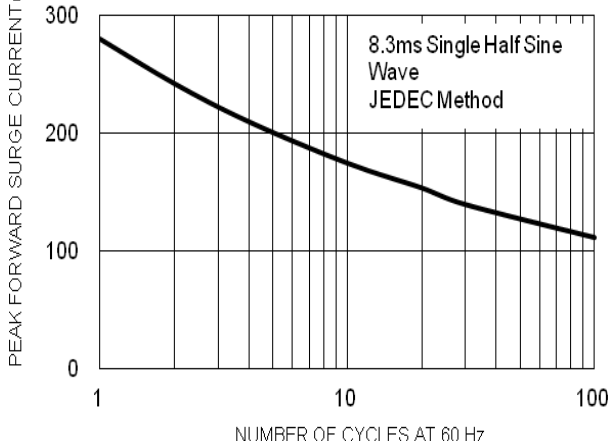


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

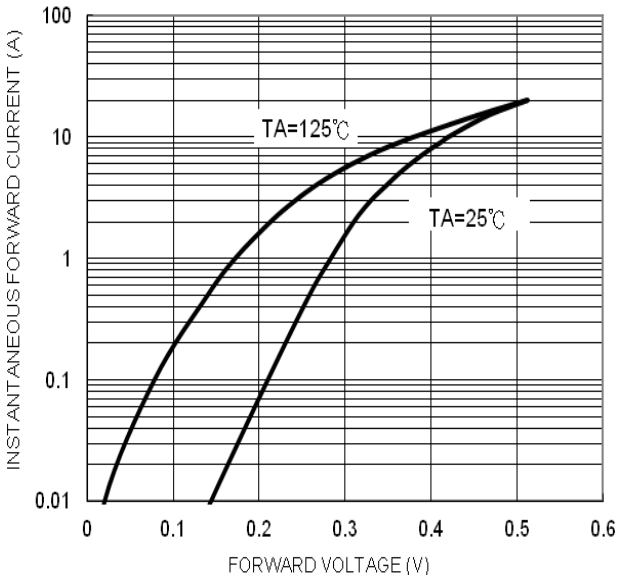


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG