

Schottky Barrier Rectifier

STPS3045CT

FEATURES

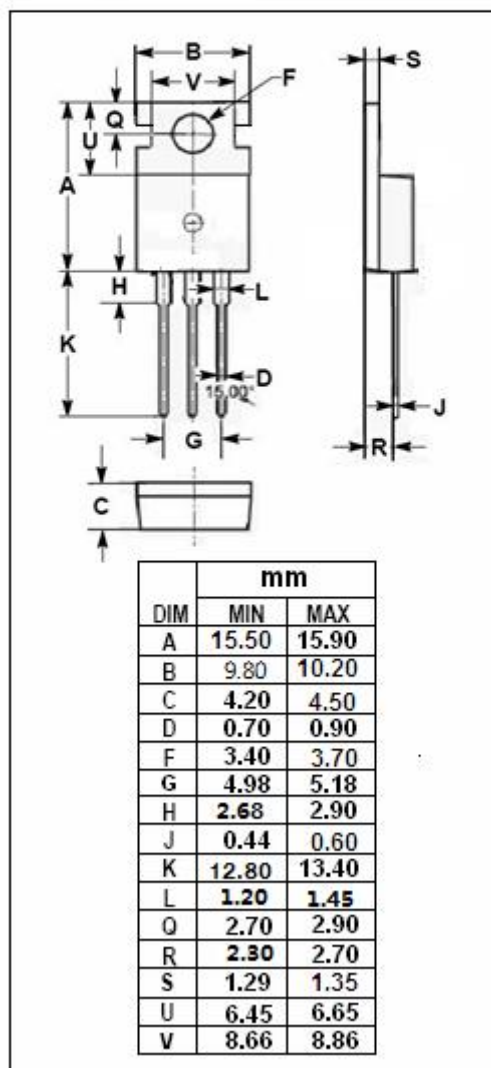
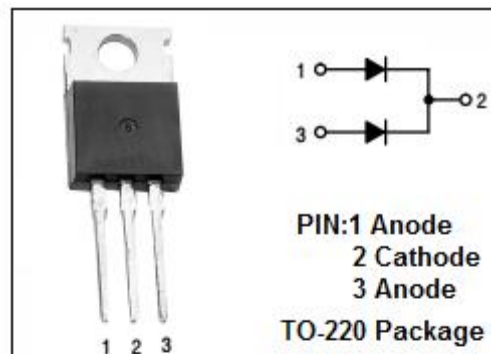
- Very small conduction losses
- Negligible switching losses
- High Current Capability, Low Forward Voltage Drop
- High Surge Capacity
- Guarding for Overvoltage protection
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

MECHANICAL CHARACTERISTICS

- Case: Epoxy, Molded
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- High Temperature Soldering Guaranteed:
250°C Max. for 10 Seconds

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM} V_{RMS} V_R	Peak Repetitive Reverse Voltage RMS Voltage DC Blocking Voltage	45	V
$I_{F(AV)}$	Average Rectified Forward Current (Per Leg) (Total)	15 30	A
I_{FSM}	Nonrepetitive Peak Surge Current 8.3ms single half sine-wave superimposed on rated load conditions	220	A
I_{RRM}	Peak Repetitive Reverse Surge Current (2 μ S - 1Khz)	1	A
T_J	Junction Temperature	-55~150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.6	°C/W

ELECTRICAL CHARACTERISTICS (Pulse Test: Pulse Width $\leq 300\ \mu s$, Duty Cycle $\leq 1\%$)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F = 15A$; $T_C = 25^\circ C$ $I_F = 30A$; $T_C = 25^\circ C$	0.6 0.84	V
I_R	Maximum Instantaneous Reverse Current	Rated DC Voltage, $T_C = 25^\circ C$	50	μA

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