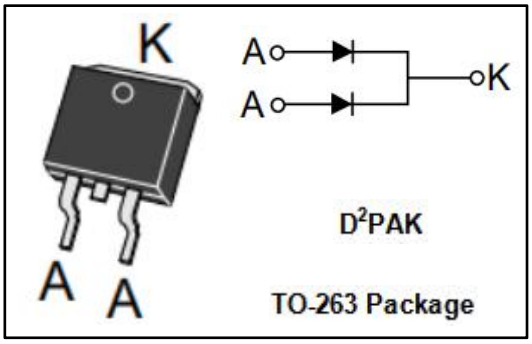
Schottky Barrier Rectifier — STPS2045CG



FEATURES

- Dual Rectifier Conduction, Positive Center Tap
- Metal Silicon Junction, Majority Carrier Conduction
- Low Power Loss/High Efficiency
- 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℃ Max. for 10 Seconds

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM}	DC Blocking Voltage	45	V
$I_{F(AV)}$	Average Rectified Forward Current T_C= 125℃	20	A
I_{FSM}	Nonrepetitive Peak Surge Current 10ms single half sine-wave superimposed on rated load conditions	180	A
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~175	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	2.2	℃/W

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ELECTRICAL CHARACTERISTICS(Pulse Test: Pulse Width≤300 μ s,Duty Cycle≤2%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	I_F= 10A ; T_C= 125℃ I_F= 20A ; T_C= 25℃ I_F= 20A ; T_C= 125℃	0.57 0.84 0.72	V
I_R	Maximum Instantaneous Reverse Current	V_R= 45V, T_C= 25℃	100	uA

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