

MBRS25H45CT

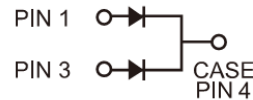
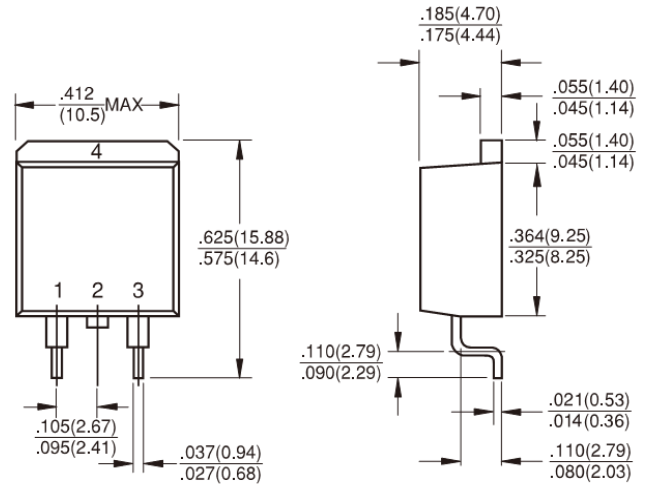
25.0AMPS Surface Mount Schottky Barrier Rectifier

D²PAK



Features

- ✦ UL Recognized File # E-326854
- ✦ Plastic material used carries Underwriters Laboratory Classifications 94V-0
- ✦ Metal silicon junction, majority carrier conduction
- ✦ Low power loss, high efficiency
- ✦ High current capability, low forward voltage drop
- ✦ High Surge capability
- ✦ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- ✦ Guarding for over voltage protection
- ✦ High temperature soldering guaranteed: 260°C/ 10 seconds at terminals
- ✦ Green compound with suffix "G" on packing code & prefix "G" on datecode



Mechanical Data

- ✦ Case: JEDEC D²PAK molded plastic
- ✦ Terminals: Leads solderable per MIL-STD-750, Method 2026
- ✦ Polarity: As marked
- ✦ Mounting position: Any
- ✦ Weight: 1.41 grams

Dimensions in inches and (millimeters)

Marking Diagram



- MBRS25H45CT = Specific Device Code
- G = Green Compound
 - Y = Year
 - WW = Work Week

Maximum Ratings and Electrical Characteristic

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	MBRS25H45CT	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	45	V
Maximum RMS Voltage	V_{RMS}	31	V
Maximum DC blocking voltage	V_{DC}	45	V
Maximum Average Forward Rectified Current @ $T_c = 155^\circ\text{C}$ (Total Device)	$I_{F(AV)}$	25	A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	150	A
Maximum Instantaneous Forward Voltage at (Note 1) $I_F = 12.5\text{A}, T_a = 25^\circ\text{C}$ $I_F = 12.5\text{A}, T_a = 125^\circ\text{C}$ $I_F = 25\text{A}, T_a = 25^\circ\text{C}$ $I_F = 25\text{A}, T_a = 125^\circ\text{C}$	V_F	0.70 0.60 0.90 0.75	V
Maximum Reverse Current $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$	I_R	0.2 15	mA mA
Voltage rate of change (Rated V_R)	dV/dt	10,000	V/ μS
Maximum Thermal Resistance Per Leg (Note 2)	$R_{\theta JC}$ $R_{\theta JA}$	1.5 50	$^\circ\text{C/W}$
Operating Temperature Range	T_J	-65 to + 175	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to + 175	$^\circ\text{C}$

Note1: Pulse Test : 300us Pulse Width, 1% Duty cycle

Note2 Thermal Resistance from Junction to Case Per Leg

RATINGS AND CHARACTERISTIC CURVES (MBRS25H45CT)

