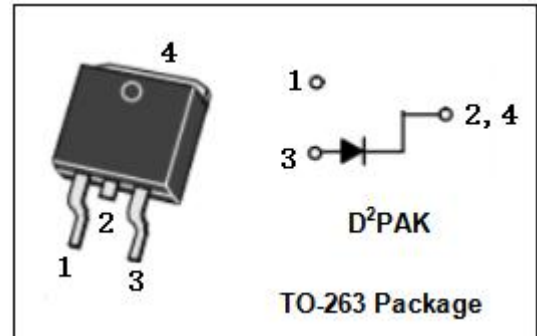


Schottky Barrier Rectifier**10TQ045S****FEATURES**

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- Low Power Loss/High Efficiency
- High Surge Capability
- High Current Capability, Low Forward Voltage Drop
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for low-voltage, high frequency inverters, free wheeling and polarity protection applications.

ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{RRM} V _{RWM} V _R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	45	V
V _{R(RMS)}	RMS Reverse Voltage	45	V
I _{F(AV)}	Average Rectified Forward Current (Rated V _R) T _C = 125°C	10	A
I _{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	280	A
T _J	Junction Temperature	-40~150	°C
T _{stg}	Storage Temperature Range	-40~150	°C
dv/dt	Voltage Rate of Change (Rated V _R)	1000	V/μs

THERMAL CHARACTERISTICS

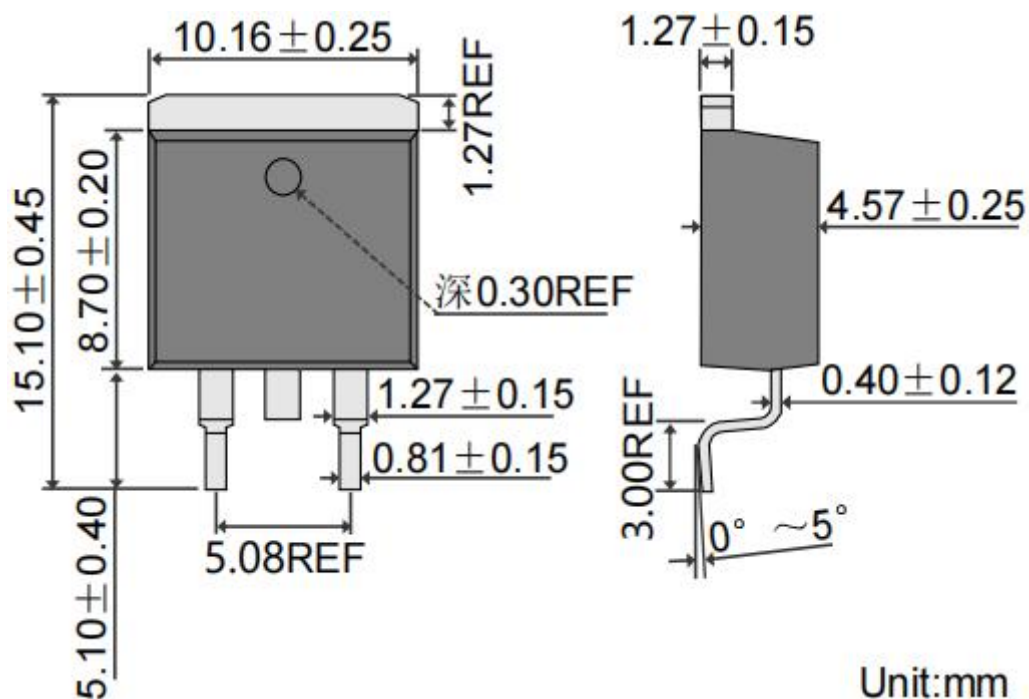
SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	2.0	°C/W

Schottky Barrier Rectifier

10TQ045S

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F = 10A$; $T_C = 25^\circ C$ $I_F = 10A$; $T_C = 125^\circ C$	0.57 0.61	V
I_R	Maximum Instantaneous Reverse Current	Rated DC Voltage, $T_C = 25^\circ C$ Rated DC Voltage, $T_C = 125^\circ C$	0.1 10	mA

**NOTICE:**

ISC reserves the rights to make changes of the content herein the datasheet at any time without notification. The information contained herein is presented only as a guide for the applications of our products.

ISC products are intended for usage in general electronic equipment. The products are not designed for use in equipment which require specialized quality and/or reliability, or in equipment which could have applications in hazardous environments, aerospace industry, or medical field. Please contact us if you intend our products to be used in these special applications.

ISC makes no warranty or guarantee regarding the suitability of its products for any particular purpose, nor does ISC assume any liability arising from the application or use of any products, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages.