

SCHOTTKY BARRIER RECTIFIER

REVERSE VOLTAGE - 45 Volts FORWARD CURRENT - 20 Amperes

FEATURES

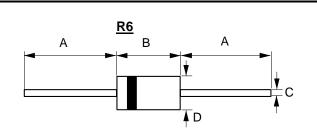
- · Metal of silicon rectifier, majority carrier conduction
- · Guard ring for transient protection
- · Low power loss, high efficiency
- · High surge & current capability, low VF
- IEC 61000-4-2(ESD), >±30KV(air), >±15KV(contact)
- · Lead-Free Finish; RoHS Compliant (Notes 1 & 2)

APPLICATION

• For use in Solar Cell junction box as a bypass diode for protection, using DC forward current without reverse bias.

MECHANICAL DATA

- Package: JEDEC R-6 molded plastic
- · Package Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Polarity: Color band denotes cathode
- Terminals: Finish Bright Tin. Plated Leads Solderable per MIL-STD-202, Method 208 @3)
- Weight: 0.07 ounces, 2.1grams (Approximate)
- · Mounting position: Any
- Soldering condition: Temp 260°C±5 (Duration10±1s)



	R6₽		ته
DIM₽	MIN₽	MAX₽	47
A₊∍	25.4₽		ą.
B₽	8.60₽	9.10₽	47
C₽	1.22Ф₽	1.32Ф₽	47
D₽	8.60Ф₽	9.10Ф₽	47
All Dimensions in millimeter.			ų.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

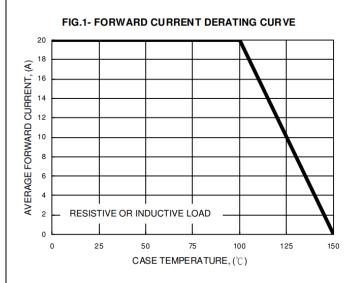
Ratings at 25°C ambient temperature unless otherwise specified.

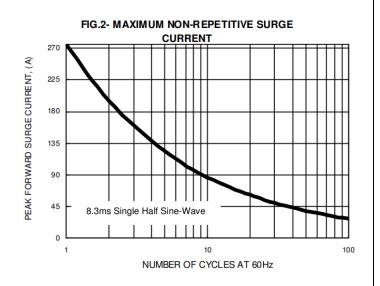
ABSOLUTE RATINGS

PARAMETER	SYMBOL	20SQ045	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	45	V
Maximum DC blocking voltage	V _{DC}	45	V
Average rectified Output Current @Tc=100°C	I _F	20	А
Peak forward surge 8.3ms single half sine-wave superimposed on rat load	red I _{FSM}	275	А
Maximum Forward Voltage at 20A DC (Note 3) T _J =25°C	V _F	0.55	V
Maximum DC Reverse Current at rated DC T _J =25°C blocking voltage T _J =100°C	I _R	1.0 100	mA
Typical Junction Capacitance (Note 4)	CJ	1300	pF
Typical thermal resistance junction to Lead (Note 5)	ROJL	2.0	°C/W
Typical thermal resistance junction to Case (Note 5)	ROJC	7.0	°C/W
Typical thermal resistance junction to Ambient (Note 5)	ROJA	40	°C/W
Operating junction temperature	TJ	150	°C
Junction temperature in DC forward current without reverse bias, $t \le 1 \text{ h (Note 6)}$	TJ	≤200	°C
Storage temperature range	T _{STG}	-55 to +150	°C

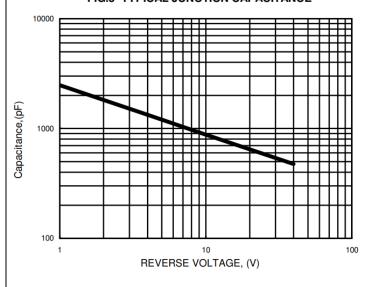
- 1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
- 2. See https://www.diodes.com/quality/lead-free/ for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
- 3. 300us pulse width, 2% duty cycle
 4. Measured at 1.0MHz and reverse voltage of 4.0V DC.
- Thermal Resistance test performed in accordance with JESD-51.
 Meets the requirement of IEC 61215 ed. 2 bypass diode thermal test.

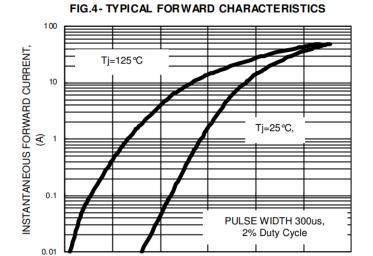
RATING AND CHARACTERISTIC CURVES 20SQ045











0.301

INSTANTANEOUS FORWARD VOLTAGE, (V)

0.401

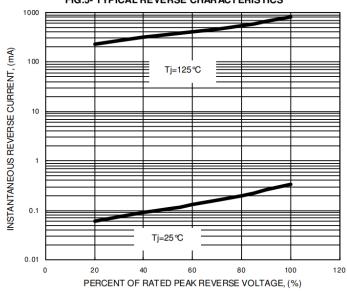
0.501

FIG.5- TYPICAL REVERSE CHARACTERISTICS

0.001

0.101

0.201

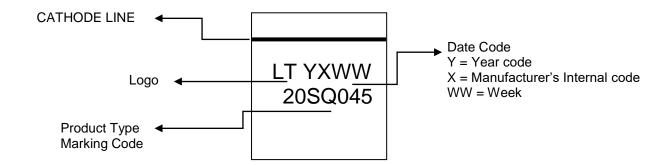




Ordering Information:

Part Number	mher Peekege		king
Fait Nullibei	Package	Qty.	Carrier
20SQ045	R6	700	Tape & Reel

Marking Information:





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