

## Silicon Carbide Schottky Diode

$V_{RRM}$	650V
$I_F$ 66°C	20A
$Q_C$	62nC

### Features

- Positive temperature coefficient
- Temperature-independent switching
- Maximum working temperature at 175 °C
- Unipolar devices and zero reverse recovery current
- Zero forward recovery current
- Essentially no switching losses
- Reduction of heat sink requirements
- High-frequency operation
- Reduction of EMI

### Typical Applications

Typical applications are in power factor correction(PFC), solar inverter, uninterruptible power supply, motor drives, photovoltaic inverter, electric car and charger.

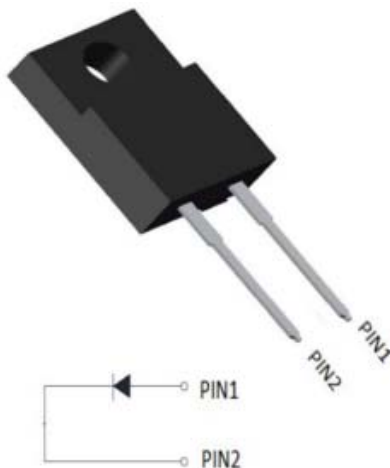
### Mechanical Data

**Package:** ITO-220AC

Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free

**Terminals:** Tin plated leads

**Polarity:** As marked



### Maximum Ratings ( $T_c=25$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	VALUE
Device marking code			D106520FQG2
Reverse voltage (repetitive peak) @ $T_j=25^\circ\text{C}$	$V_{RRM}$	V	650
Reverse voltage (Surge Peak) @ $T_j=25^\circ\text{C}$	$V_{RSM}$	V	650
Reverse voltage (DC) @ $T_j=25^\circ\text{C}$	$V_{DC}$	V	650
Continuous forward current @ $T_c=25^\circ\text{C}$	$I_F$	A	24
Continuous forward current @ $T_c=66^\circ\text{C}$			20
Non-repetitive peak forward surge current @ $T_c=25^\circ\text{C}$ , $t_p=10\text{ms}$ , Half Sine Wave	$I_{FSM}$	A	160
Power Dissipation @ $T_c=25^\circ\text{C}$	$P_{TOT}$	W	47
Power Dissipation @ $T_c=110^\circ\text{C}$			20
$i^2t$ Value @ $T_c=25^\circ\text{C}$ , $t_p=10\text{ms}$	$i^2t$	$\text{A}^2\text{S}$	128
Operating junction and Storage temperature range	$T_j, T_{stg}$	$^\circ\text{C}$	-55 to +175



## YJD106520FQG2

### Electrical Characteristics

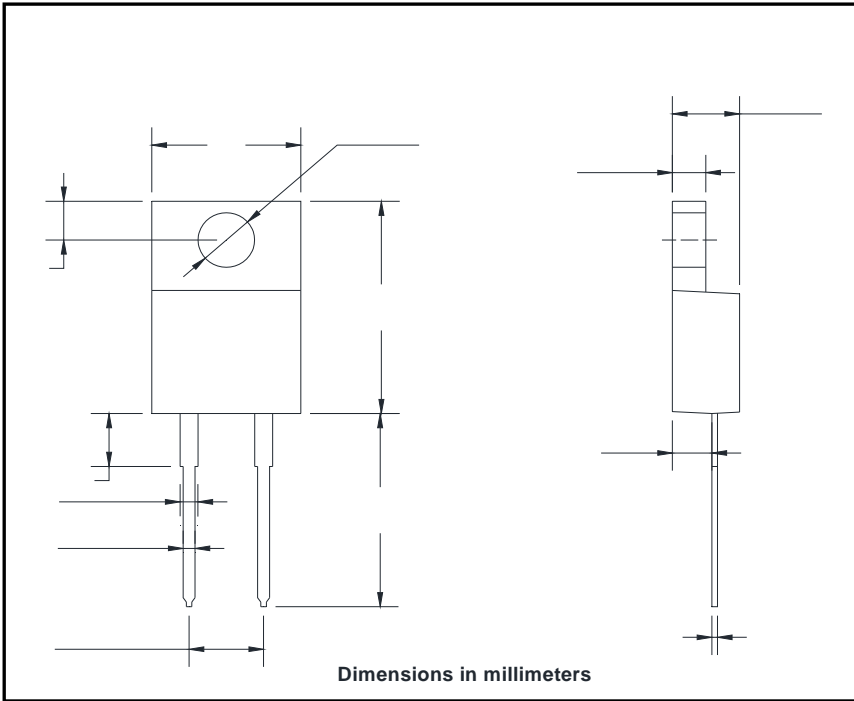
PARAMTETER	SYMBOL	UNIT	TEST CONDITIONS	Typ.	Max.
Forward voltage drop	$V_F$	V	$I_F=20A, T_J=25^{\circ}C$	1.35	1.55
			$I_F=20A, T_J=175^{\circ}C$	1.75	-





# YJD106520FQG2

## Outline Dimensions



ITO-220AC		
Dim	Min	Max
A	9.8	10.2
B	2.25	2.75
C	2.95	3.45
D	14.75	15.25
E	3.5	4.1
F	0.45	0.75
G	0.45	0.75
H	13.35	14.15
I	4.97	5.23
J	4.3	4.8
K	2.5	2.74
L	2.58	2.82
M	1.03	1.43



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