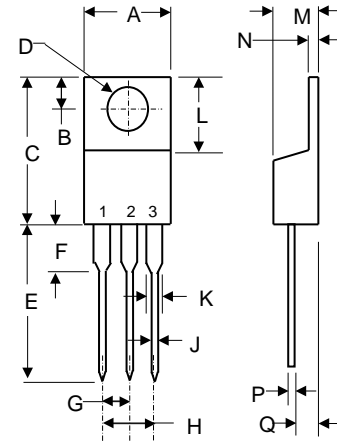


### Features

- \* EXTREMELY LOW VF
- \* TRENCH MOS SCHOTTKY TECHNOLOGY
- \* LOW POWER LOSS / HIGH EFFICIENCY
- \* HIGH FREQUENCY OPERATION
- \* HIGH FORWARD SURGE CAPABILITY



RoHS  
COMPLIANT



DIM	TO-220AB			
	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.387	0.419	9.85	10.66
B	0.100	0.135	2.54	3.43
C	0.548	0.624	13.93	15.87
D	0.139	0.161	3.55	4.09
E	0.50	---	12.7	---
F	---	0.177	---	4.5
G	0.091	0.110	2.3	2.8
H	0.190	0.210	4.83	5.33
J	0.019	0.038	0.5	0.96
K	0.045	0.060	1.14	1.52
L	0.226	0.269	5.75	6.85
M	0.163	0.196	4.16	5.0
N	0.045	0.054	1.15	1.39
P	0.012	0.025	0.3	0.65
Q	0.080	0.115	2.04	2.92

### Mechanical Data

- \* CASE: TRANSFER MOLDED
- \* LEADS: SOLDERABLE PER MIL-STD-202, METHOD 208
- \* POLARITY: AS MARKED
- \* WEIGHT: 2.15 GRAMS (TO-220AB)
- \* TERMINALS: PURETIN PLATED

### Primary Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	VALUE
I <sub>o</sub>	2X10A
V <sub>RRM</sub>	200V
I <sub>FSM</sub>	200A
V <sub>F</sub> @10A, T <sub>J</sub> =125°C	0.75V
T <sub>Jmax</sub>	150°C

### Maximum Ratings and Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	ST20200CT	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V <sub>RRM</sub>	200	V
MAXIMUM RMS VOLTAGE	V <sub>RMS</sub>	140	V
MAXIMUM DC BLOCKING VOLTAGE	V <sub>DC</sub>	200	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT SEE FIG.1 PER LEG	I <sub>O</sub>	20 10	A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD PER LEG	I <sub>FSM</sub>	200	A
STORAGE TEMPERATURE RANGE	T <sub>STG</sub>	- 55 TO + 175	°C
OPERATING JUNCTION TEMPERATURE RANGE	T <sub>J</sub>	- 55 TO + 150	°C
MAXIMUM FORWARD VOLTAGE AT I <sub>F</sub> = 10A T <sub>J</sub> =25°C T <sub>J</sub> =125°C TYPICAL FORWARD VOLTAGE AT I <sub>F</sub> = 20A T <sub>J</sub> =25°C T <sub>J</sub> =125°C	V <sub>F</sub>	0.89 0.77 1 0.88	V
MAXIMUM REVERSE CURRENT AT 25°C PER LEG (NOTE 1)	I <sub>R</sub>	0.01	mA
MAXIMUM REVERSE CURRENT AT 125°C PER LEG (NOTE 1)	I <sub>R</sub>	10	mA
TYPICAL THERMAL RESISTANCE JUNCTION TO CASE PER LEG	R <sub>θjc</sub>	2.2	°C/W
ISOLATION VOLTAGE(ITO-220AB ONLY)FROM TERMINAL TO HEATSINK T=1MIN	V <sub>AC</sub>	/	V

NOTES : 1. PULSE TEST: 300µS PULSE WIDTH, 1% DUTY CYCLE.

### Ratings and Characteristic Curves

FIG. 1-FORWARD CURRENT DERATING CURVE

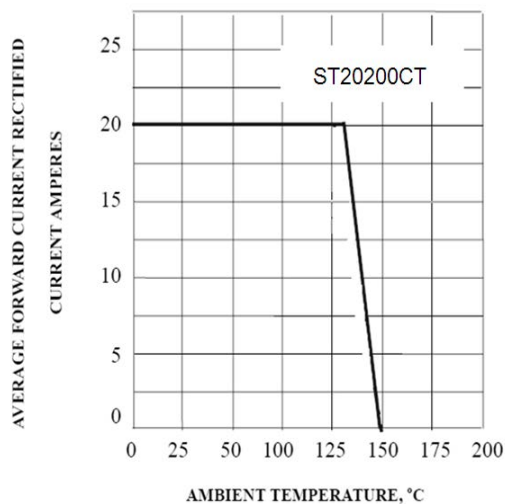
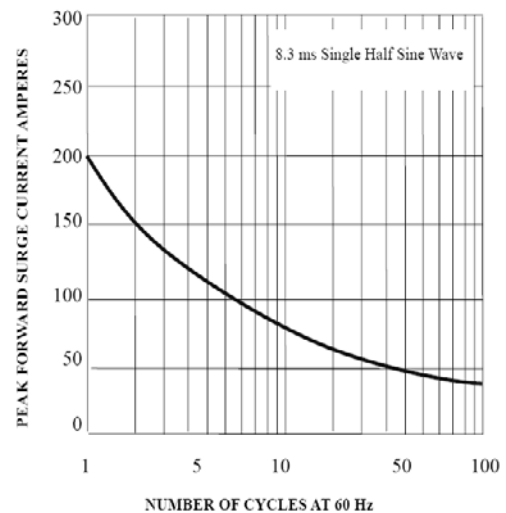


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE RATING



### Ratings and Characteristic Curves

FIG. 3- TYPICAL REVERSE CHARACTERISTICS

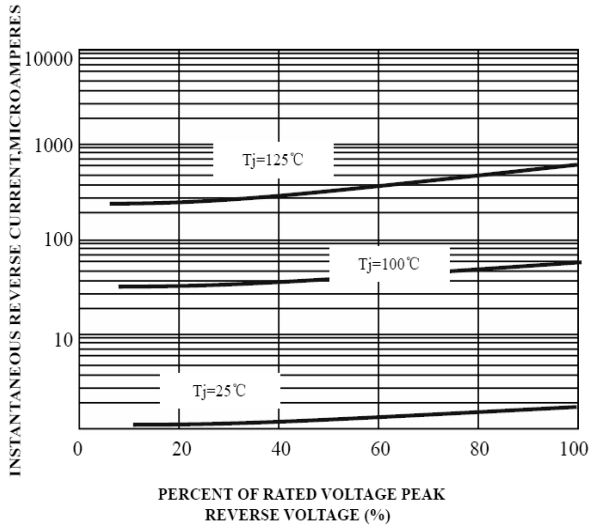
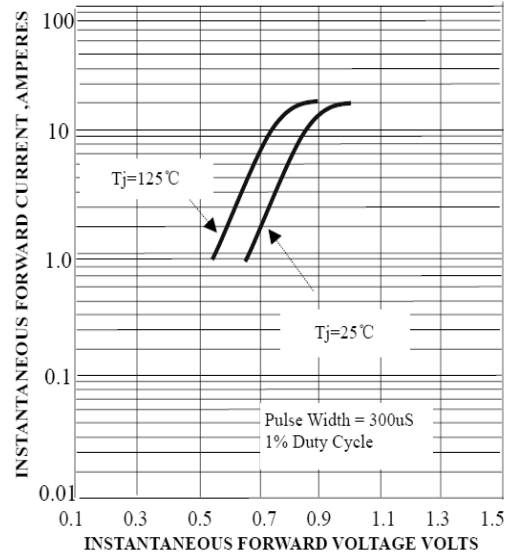
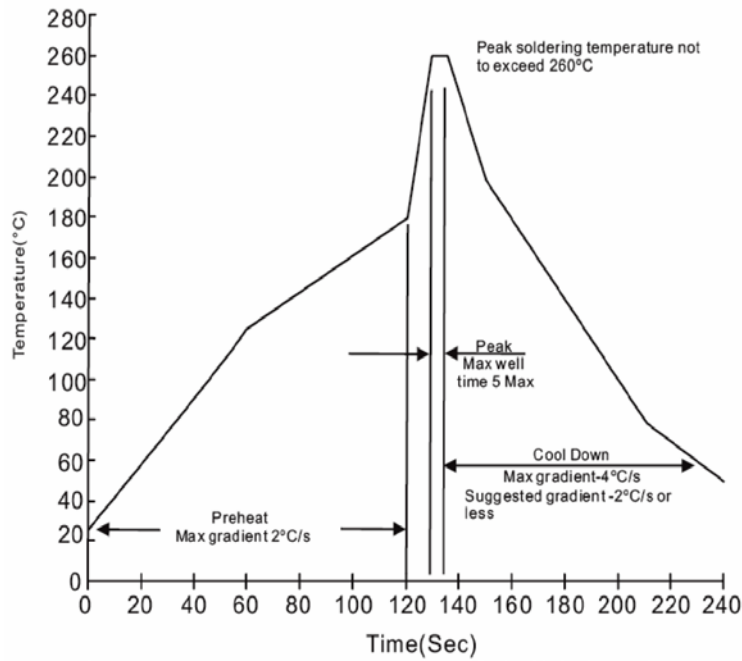


FIG. 4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



#### 1. LEAD FREE TEMPERATURE PROFILE WAVE-SOLDERING





**ST20200CT**  
**20A Low VF Trench MOS Schottky Rectifier**

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**Ordering Information**

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Part No.	Package	Packing Code	Packing
ST20200CT	TO-220AB	T35	50pcs/Tube

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