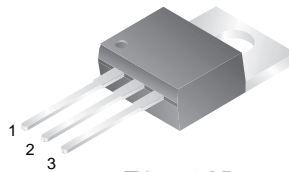


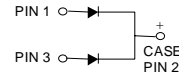
## MBR2535CT - MBR2560CT

### Features

- Low power loss, high efficiency.
- High surge capacity.
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- Metal silicon junction, majority carrier conduction.
- High current capacity, low forward voltage drop.
- Guard ring for over voltage protection.



TO-220AB



### 30 Ampere Schottky Barrier Rectifiers

#### Absolute Maximum Ratings\* T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
I <sub>F(AV)</sub>	Average Rectified Current .375 " lead length @ T <sub>A</sub> = 130°C	30	A
I <sub>FRM</sub>	Peak Repetitive Forward Current (Rated V <sub>R</sub> , Square Wave, 20 KHz) @ T <sub>A</sub> = 130°C	30	A
I <sub>FSM</sub>	Non-repetitive Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	150	A
P <sub>D</sub>	Total Device Dissipation	2.0	W
	Derate above 25°C	16.6	mW/°C
R <sub>θJA</sub>	Thermal Resistance, Junction to Ambient	60	°C/W
R <sub>θJL</sub>	Thermal Resistance, Junction to Lead	1.5	°C/W
T <sub>stg</sub>	Storage Temperature Range	-65 to +175	°C
T <sub>J</sub>	Operating Junction Temperature	-65 to +150	°C

\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

#### Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Device				Units
		2535CT	2545CT	2550CT	2560CT	
V <sub>R</sub> RM	Peak Repetitive Reverse Voltage	35	45	50	60	V
V <sub>R</sub> MS	Maximum RMS Voltage	24	31	35	42	V
V <sub>R</sub>	DC Reverse Voltage (Rated V <sub>R</sub> )	35	45	50	60	V
	Voltage Rate of Change (Rated V <sub>R</sub> )	10,000				V/μs
I <sub>RM</sub>	Maximum Instantaneous Reverse Current @ rated V <sub>R</sub> T <sub>A</sub> = 25°C T <sub>A</sub> = 125°C	0.2		1.0		mA
		40		50		
V <sub>FM</sub>	Maximum Instantaneous Forward Voltage I <sub>F</sub> = 15 A, T <sub>C</sub> = 25°C I <sub>F</sub> = 15 A, T <sub>C</sub> = 125°C I <sub>F</sub> = 30 A, T <sub>C</sub> = 25°C I <sub>F</sub> = 30 A, T <sub>C</sub> = 125°C	-		0.75		V
		-		0.65		V
		0.82		-		V
		0.73		-		V
I <sub>RRM</sub>	Peak Repetitive Reverse Surge Current 2.0 μs Pulse Width, f = 1.0 KHz	1.0		0.5		A

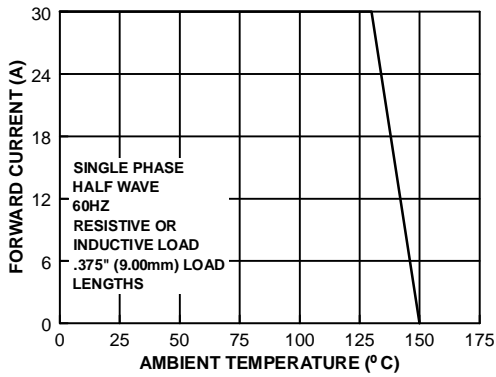
# Schottky Barrier Rectifier

(continued)

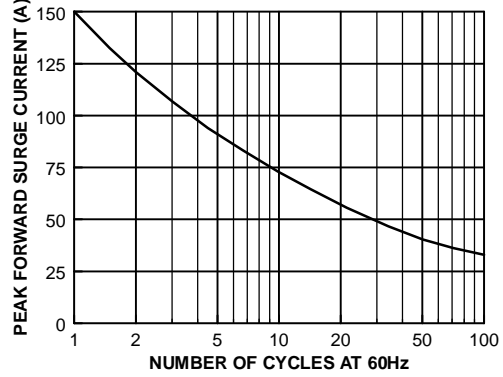
MBR2535CT - MBR2560CT

## Typical Characteristics

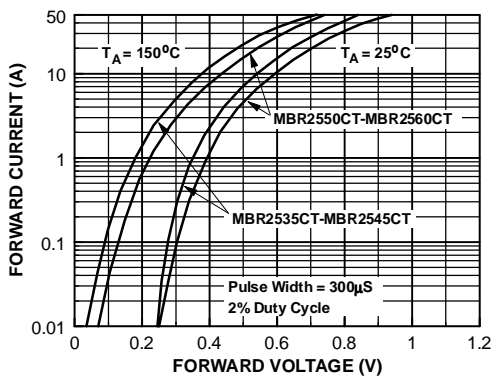
### Forward Current Derating Curve



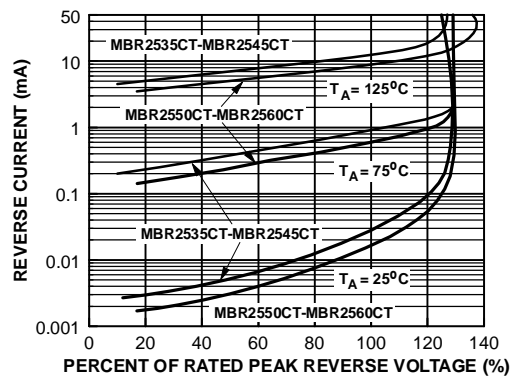
### Non-Repetitive Surge Current



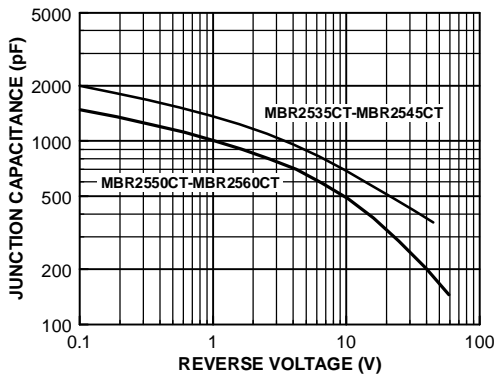
### Forward Characteristics



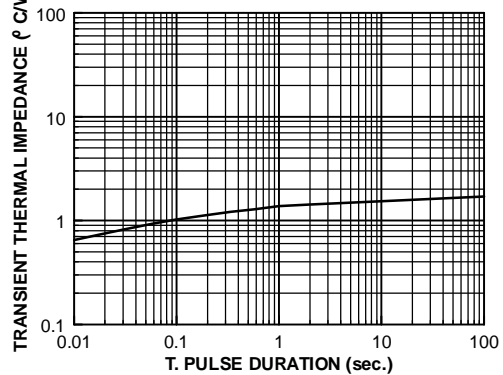
### Reverse Characteristics



### Typical Junction Capacitance



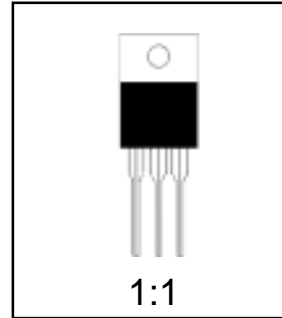
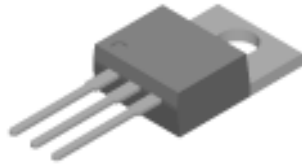
### Transient Thermal Impedance



# TO-220AB Package Dimensions



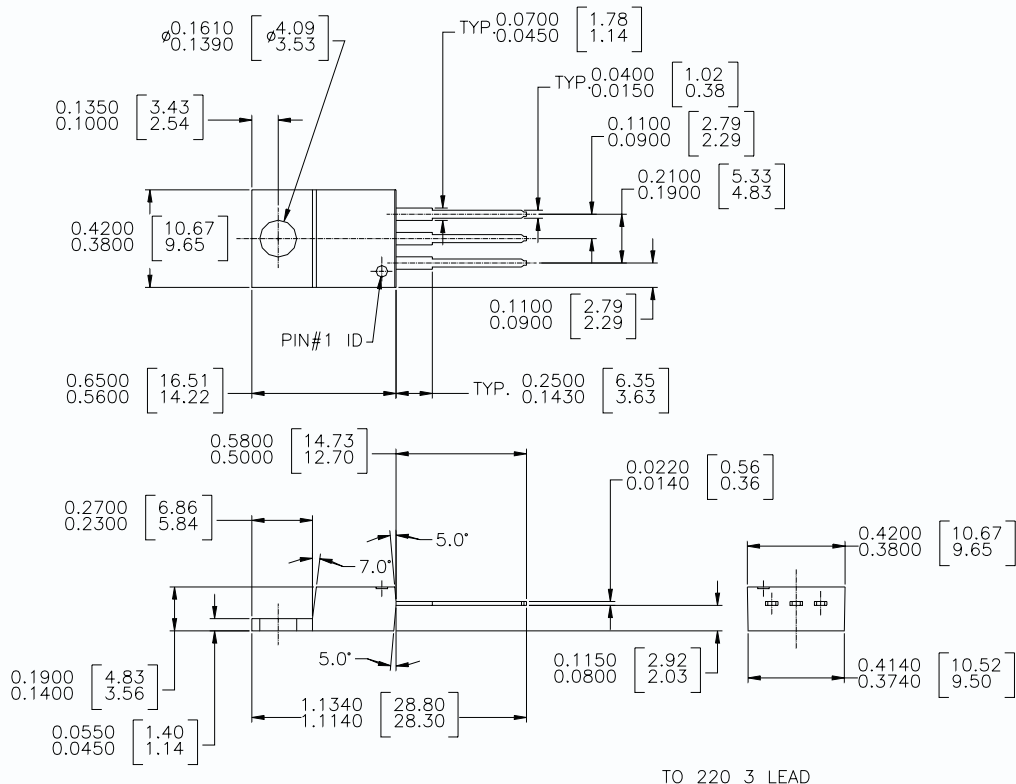
## TO-220AB (FS PKG Code P8)



Scale 1:1 on letter size paper

Dimensions shown below are in:  
inches [millimeters]

Part Weight per unit (gram): 2.24



NOTE : UNLESS OTHERWISE SPECIFIED

1. STANDARD LEAD FINISH :  
200 MICROINCHES / 5.08 MICRON MINIMUM  
LEAD / TIN 15/85 ON OLIN 194 COPPER OR EQUIVALENT

2. DIMENSION BASED ON JEDEC STANDARD TO-220  
VARIATION AB, ISSUE J, DATED 3/24/87

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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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