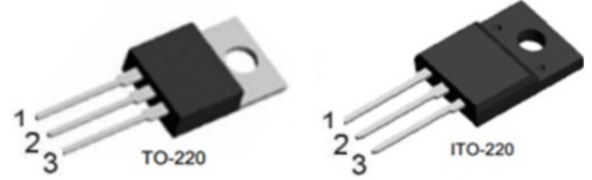


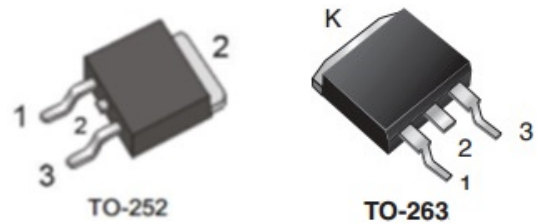
Features

- ◇ Trench Schottky Barrier technology
- ◇ Ultra low forward voltage drop
- ◇ Low power loss,high efficiency
- ◇ Excellent low reverse leakages
- ◇ Excellent high temperature stability
- ◇ High current capability
- ◇ High forward surge capability
- ◇ Lead free finish ,Rohs and WEEE compliant.



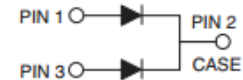
Applications

- ◇ Switching diode
- ◇ Switching mode power supply(SMPS)
- ◇ DC/DC converter
- ◇ LED lighting
- ◇ Adapter for notebook and game station



Mechanical Data

- ◇ Moisture Sensitivity: MSL Level 1,per J-STD-020
- ◇ Terminals:Matte Tin Finish.
Solderable per MIL-STD-202 Method 208
- ◇ Case Material: Molded Plastic;
Molding compound meet UL Flammability Classification Rating 94V-0
- ◇ Case:JEDEC TO-220AB,ITO-220AB,TO-252,TO-263



MAXIMUM RATING

Ratings at 25°C ambient temperature unless otherwise specified.

| PARAMETER | SYMBOL | VALUE | UNITS | |
|--|-----------------|-----------------|---------------|---------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 100 | V | |
| Maximum RMS voltage | V_{RWS} | 70 | V | |
| Maximum DC blocking voltage | V_{DC} | 100 | V | |
| Maximum average forward rectified current | $I_{F(AV)}$ | 30 | A | |
| | | 15 | A | |
| Peak forward surge current 8.3ms half-sine-wave | I_{FSM} | 250 | A | |
| I^2t Rating for Fusing($t < 8.3ms$) | I^2t | 259 | A^2s | |
| Typical Thermal Resistance | TO-220AB | $R_{\theta JA}$ | 23 | $^{\circ}C/W$ |
| | | $R_{\theta JC}$ | 2.5 | $^{\circ}C/W$ |
| | | $R_{\theta JL}$ | 3.0 | $^{\circ}C/W$ |
| | ITO-220AB | $R_{\theta JC}$ | 4.5 | $^{\circ}C/W$ |
| | TO-252 | $R_{\theta JC}$ | 2.5 | $^{\circ}C/W$ |
| TO-263 | $R_{\theta JC}$ | 2.5 | $^{\circ}C/W$ | |
| Typical junction capacitance: $V_R=4.0v, f=1MHz$ | C_J | 620 | pF | |
| Junction temperature | T_J | 150 | $^{\circ}C$ | |
| Storage temperature range | T_{STG} | -55~150 | $^{\circ}C$ | |



MBR30100LCT/MBRF30100LCT
MBR30100LDT/MB30100LMT

Low VF Trench Schottky Rectifiers



ELELTRICAL CHARACTERISTICS

| PARAMETER | TEST CONDITIONS | SYMBOL | VALUE | | | UNITS | |
|--|-------------------|-----------------|-------|-----|-------|-------|---|
| | | | Min | Typ | Max | | |
| Breakdown voltage per diode(min) | IR=0.5mA | V _{BR} | 100 | - | - | V | |
| Instantaneous forward voltage | IF=15A per Ige | TA= 25°C | VF | - | 0.70 | 0.72 | V |
| | | TA= 100°C | VF | - | 0.68 | - | V |
| | | TA= 125°C | VF | - | 0.67 | - | V |
| | IF=5A per Ige | TA= 25°C | VF | - | 0.50 | 0.52 | V |
| | | TA= 100°C | VF | - | 0.48 | - | V |
| | | TA= 125°C | VF | - | 0.47 | - | V |
| Maximum DC reverse current @Rated DC Blocking Vlotage | TA= 25°C | IR | - | 10 | 50 | μ A | |
| | TA=125°C | IR | - | - | 20000 | μ A | |

ODERING PACK INFORMATION

| Part No. | Package | Pcking | Box Size L×W×H(mm) | Quatity(pcs/box) | Carton Size L×W×H(mm) | Quatity(pcs/carton) |
|--------------|---------|------------|-----------------------|------------------|--------------------------|---------------------|
| MBR30100LCT | TO-220 | 50pcs/Tube | 558×148×38 | 1000 | 565×225×170 | 5000 |
| MBRF30100LCT | ITO-220 | 50pcs/Tube | 558×148×38 | 1000 | 565×225×170 | 5000 |
| MBR30100LDT | TO-252 | 50pcs/Tube | 558×148×38 | 1000 | 565×225×170 | 5000 |
| MBR30100LMT | TO-263 | 50pcs/Tube | 558×148×38 | 4000 | 565×225×170 | 20000 |



MBR30100LCT/MBRF30100LCT
MBR30100LDT/MB30100LMT
 Low VF Trench Schottky Rectifiers



RATING AND CHARACTERISTICS CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

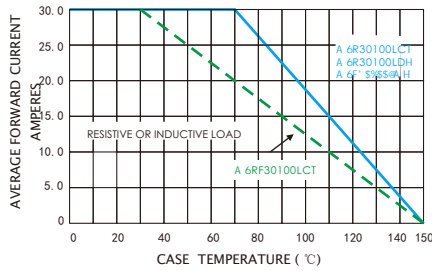


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

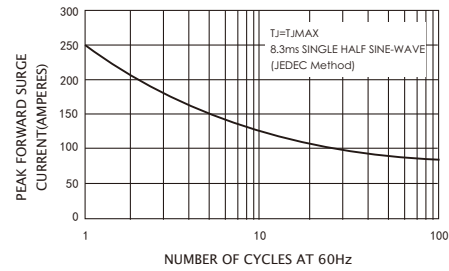


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

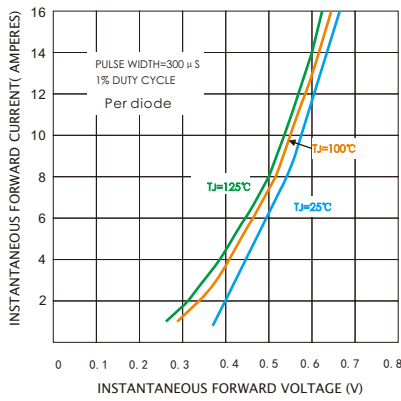


FIG.4-TYPICAL REVERSE CHARACTERISTICS

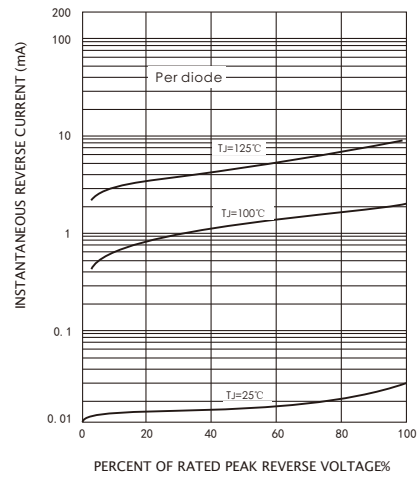
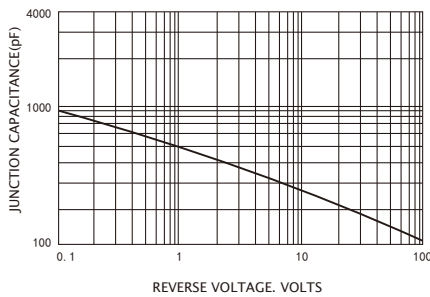


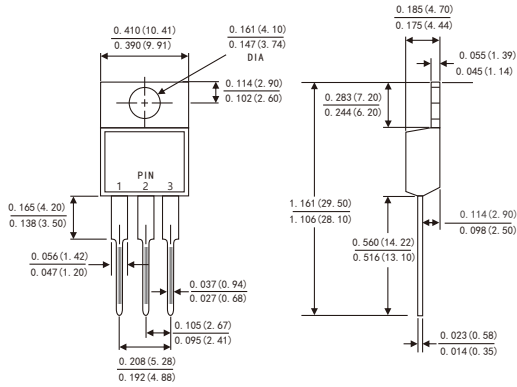
FIG.5-TYPICAL JUNCTION CAPACITANCE



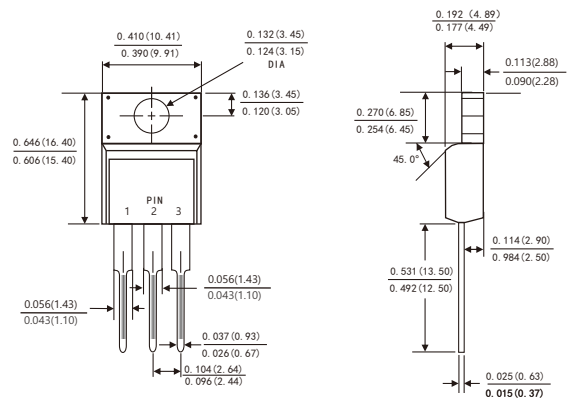
PACKAGE OUTLINE DIMENSIONS

Dimensions in inches and (millimeters)

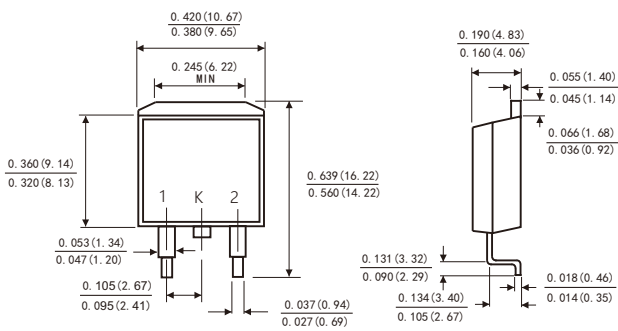
TO-220AB



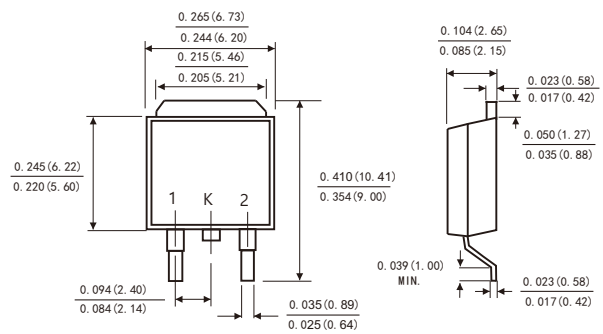
ITO-220AB



TO-263

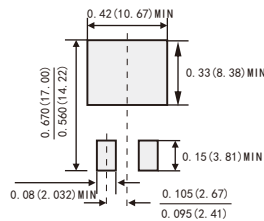


TO-252



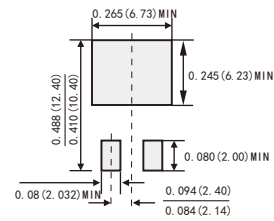
Suggested Pad Layout

(TO-263)



Suggested Pad Layout

(TO-252)



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Schottky Diodes & Rectifiers](#) category:

Click to view products by [LGE](#) manufacturer:

Other Similar products are found below :

[MA4E2039](#) [MMBD301M3T5G](#) [RB160M-50TR](#) [D83C](#) [BAS16E6433HTMA1](#) [BAS 3010S-02LRH E6327](#) [BAT 54-02LRH E6327](#)
[NRVBAF360T3G](#) [NSR05F40QNXT5G](#) [NTE555](#) [JANS1N6640](#) [SS3003CH-TL-E](#) [GA01SHT18](#) [CRS10I30A\(TE85L,QM](#) [MBRA140TRPBF](#)
[MBRB30H30CT-1G](#) [BAT 15-04R E6152](#) [JANTX1N5712-1](#) [DMJ3940-000](#) [SB007-03C-TB-E](#) [NRVBB20100CTT4G](#) [NRVBM120LT1G](#)
[NTSB30U100CT-1G](#) [CRG04\(T5L,TEMQ\)](#) [ACDBA1100LR-HF](#) [ACDBA1200-HF](#) [ACDBA240-HF](#) [ACDBA3100-HF](#) [CDBQC0530L-HF](#)
[ACDBA260LR-HF](#) [ACDBA1100-HF](#) [10BQ015-M3/5BT](#) [NRVBM120ET1G](#) [VSSB410S-M3/5BT](#) [1N5819T-G](#) [PDS1040Q-13](#) [B160BQ-13-F](#)
[SDM05U20CSP-7](#) [BAS 70-07 E6433](#) [B140S1F-7](#) [HSM560Je3/TR13](#) [DDB2265-000](#) [ZHCS506QTA](#) [HSM190Je3/TR13](#) [B330AF-13](#)
[ACDBUC0230-HF](#) [SDM1U100S1F-7](#) [MBR10200CTF-G1](#) [CDLL5712](#) [DMF2822-000](#)