

ESCO23M-15 (5A)

(600V,1500V / 5A)

LOW LOSS SUPER HIGH SPEED RECTIFIER

Features

- Insulated package by fully molding
- Low VF
- Super high speed switching
- High reliability by planer design

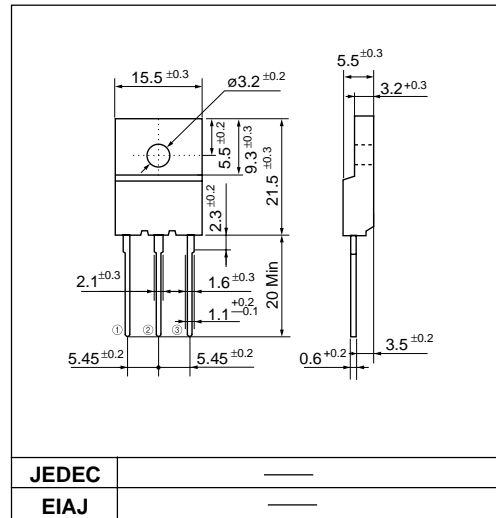
Applications

- High speed power switching

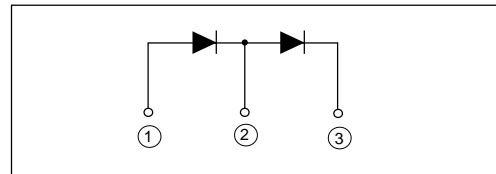
Maximum ratings and characteristics

- Absolute maximum ratings

Outline drawings, mm



Connection diagram



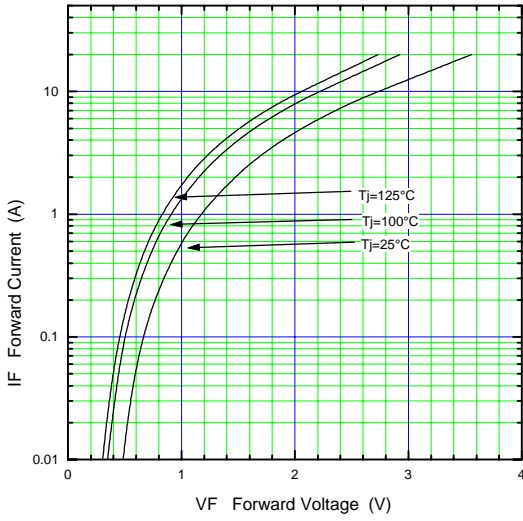
| Item | Symbol | Conditions | Rating | | Unit |
|---------------------------------------|-----------|------------------------------|-------------|--------|-------------|
| | | | ① to ② | ② to ③ | |
| Repetitive peak reverse voltage | V_{RRM} | | 600 | 1500 | V |
| Repetitive peak surge reverse voltage | V_{RSM} | | 600 | 1500 | V |
| Isolating voltage | V_{iso} | Terminals to Case, AC. 1min. | 1500 | | V |
| Average output current | I_o | $T_c=100^{\circ}C$ | 5 | | A |
| Surge current | I_{FSM} | Sine wave 10ms | 50 | 80 | A |
| Operating junction temperature | T_j | | -40 to +150 | | $^{\circ}C$ |
| Storage temperature | T_{stg} | | -40 to +150 | | $^{\circ}C$ |

- Electrical characteristics ($T_a=25^{\circ}C$ Unless otherwise specified)

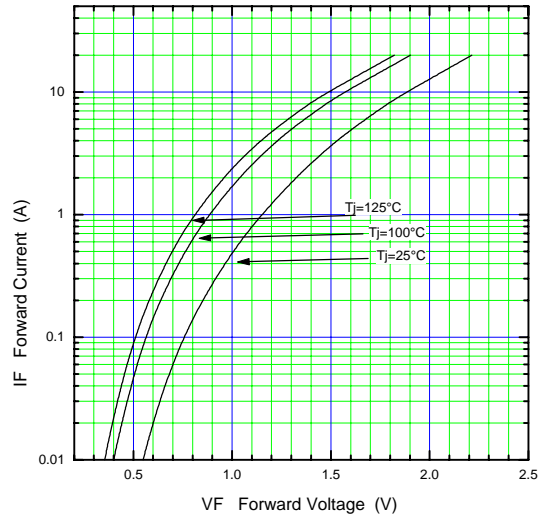
| Item | Symbol | Conditions | Max. | | Unit |
|-----------------------|---------------|----------------------|--------|--------|---------------|
| | | | ① to ② | ② to ③ | |
| Forward voltage drop | V_{FM} | $I_{FM}=4A$ | 3.0 | 1.8 | V |
| Reverse current | I_{RRM} | $V_R=V_{RRM}$ | 500 | 50 | μA |
| Reverse recovery time | t_{rr} | $I_F=0.1A, I_R=0.1A$ | 0.15 | 0.6 | μs |
| Thermal resistance | $R_{th(j-c)}$ | Junction to case | 2.5 | | $^{\circ}C/W$ |

Characteristics

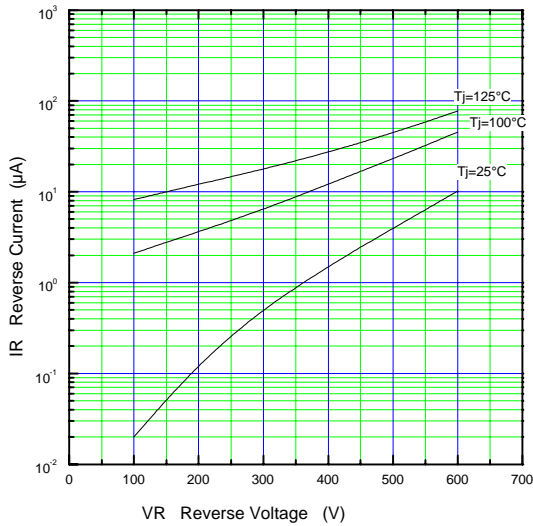
(1)-(2) Forward Characteristic (typ.)



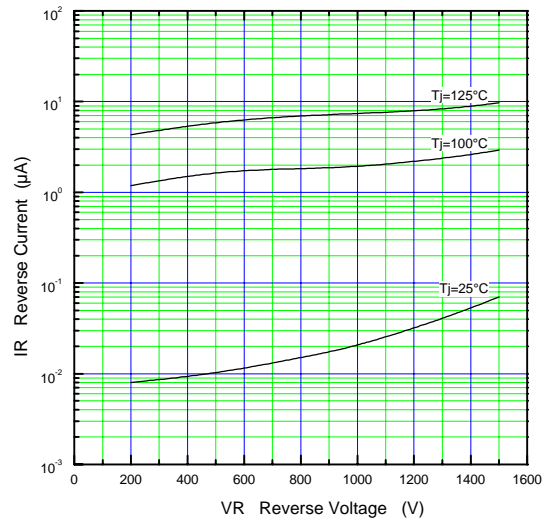
(2)-(3) Forward Characteristic (typ.)



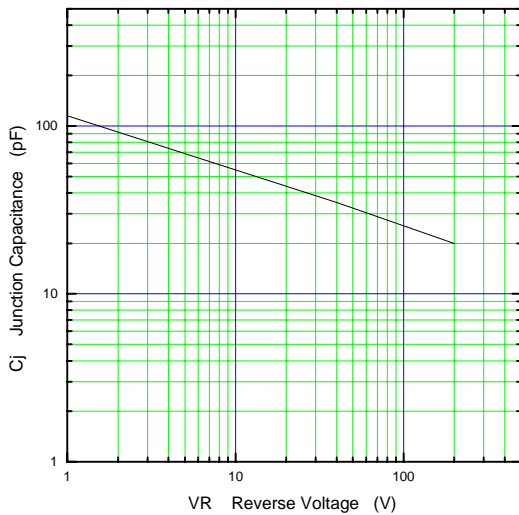
(1)-(2) Reverse Characteristic (typ.)



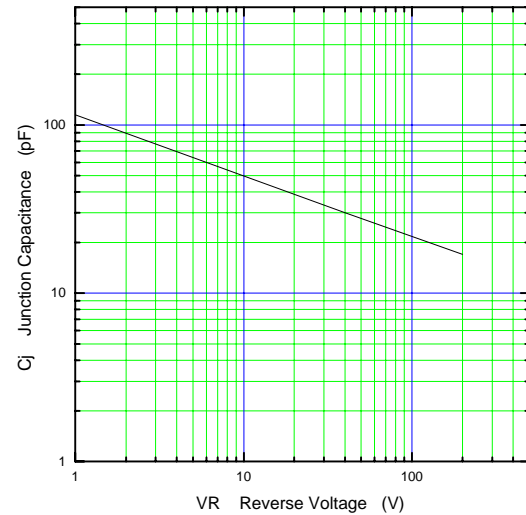
(2)-(3) Reverse Characteristic (typ.)



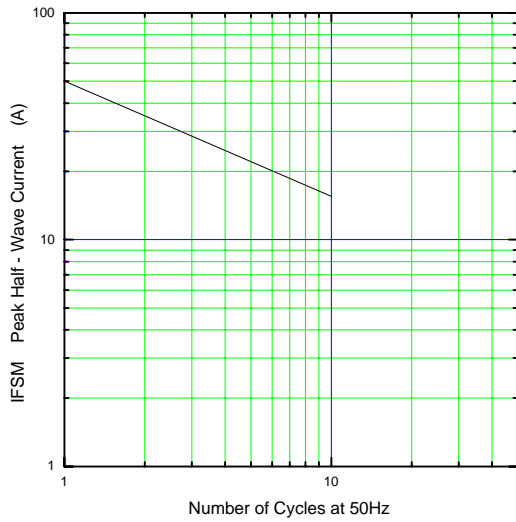
(1)-(2) Junction Capacitance Characteristic (typ.)



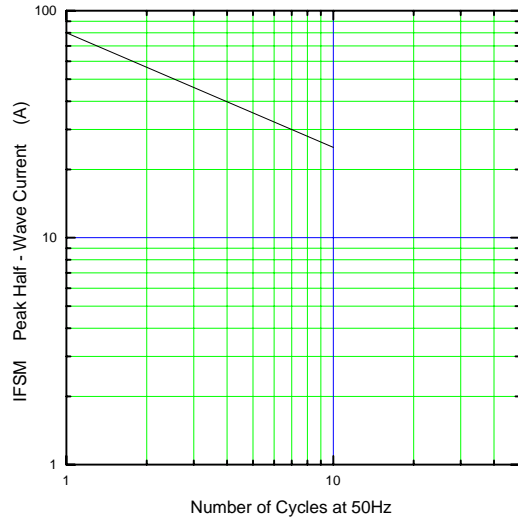
(2)-(3) Junction Capacitance Characteristic (typ.)



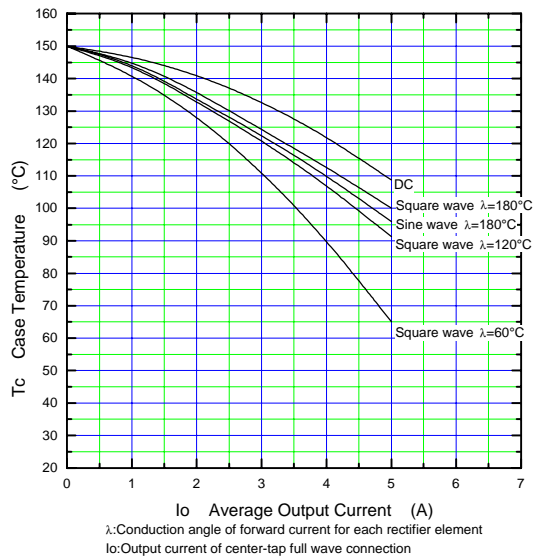
(1)-(2) Surge Capability



(2)-(3) Surge Capability



Current Derating (Io-Tc)



Transient Thermal Impedance

