

**ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$  Unless otherwise noted)**

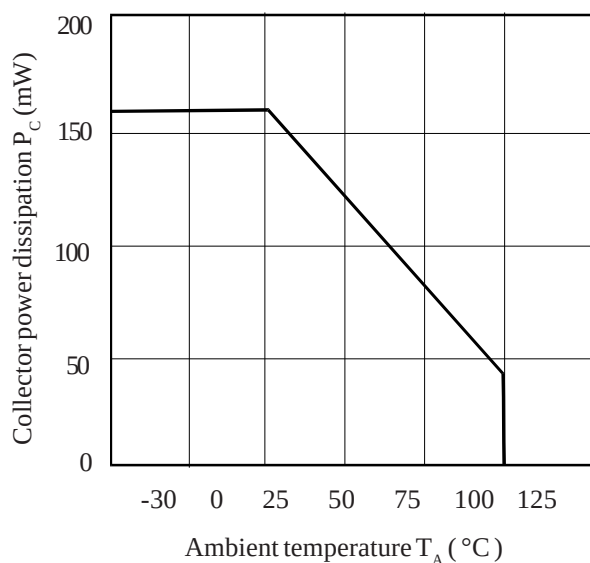
| PARAMETER |                                                        | MIN                | TYP  | MAX     | UNITS                 | TEST CONDITION                         |
|-----------|--------------------------------------------------------|--------------------|------|---------|-----------------------|----------------------------------------|
| Input     | Forward Voltage ( $V_F$ )                              | 1.0                | 1.15 | 1.5     | V                     | $I_F = 10\text{mA}$                    |
|           | Reverse Voltage ( $V_R$ )                              | 6                  |      |         | V                     | $I_R = 10\mu\text{A}$                  |
|           | Reverse Current ( $I_R$ )                              |                    |      | 10      | $\mu\text{A}$         | $V_R = 6\text{V}$                      |
| Output    | Collector-emitter Breakdown ( $BV_{CEO}$ )<br>(Note 2) | 70                 |      |         | V                     | $I_C = 1\text{mA}$                     |
|           | Emitter-collector Breakdown ( $BV_{ECO}$ )             | 6                  |      |         | V                     | $I_E = 100\mu\text{A}$                 |
|           | Collector-emitter Dark Current ( $I_{CEO}$ )           |                    | 1.0  | 50      | nA                    | $V_{CE} = 10\text{V}$                  |
| Coupled   | Output Collector Current $I_C$ (CTR)<br>(Note 2&3)     |                    |      |         |                       |                                        |
|           | MOC8106                                                | 5.0(50)            |      | 15(150) | mA(%)                 | $10\text{mA } I_F, 10\text{V } V_{CE}$ |
|           | MOC8107                                                | 10(100)            |      | 30(300) | mA(%)                 | $10\text{mA } I_F, 10\text{V } V_{CE}$ |
|           | MOC8108                                                | 25(250)            |      | 60(600) | mA(%)                 | $10\text{mA } I_F, 10\text{V } V_{CE}$ |
|           | Collector-emitter Saturation Voltage $V_{CE(SAT)}$     |                    | 0.15 | 0.4     | V                     | $5\text{mA } I_F, 0.5\text{mA } I_C$   |
|           | Input to Output Isolation Voltage $V_{ISO}$            | 5300<br>7500       |      |         | $V_{RMS}$<br>$V_{PK}$ | See note 1<br>See note 1               |
|           | Input-output Isolation Resistance $R_{ISO}$            | $5 \times 10^{10}$ |      |         | $\Omega$              | $V_{IO} = 500\text{V}$ (note 1)        |
|           | Turn-on Time $t_{on}$                                  |                    | 7.5  | 20      | $\mu\text{s}$         | $V_{CC} = 10\text{V}$ ,                |
|           | Turn-off Time $t_{off}$                                |                    | 5.7  | 20      | $\mu\text{s}$         | $I_C = 2\text{mA}, R_L = 100\Omega$    |
|           | Output Rise Time $t_r$                                 |                    | 3.2  |         | $\mu\text{s}$         |                                        |
|           | Output Fall Time $t_f$                                 |                    | 4.7  |         | $\mu\text{s}$         |                                        |

Note 1 Measured with input leads shorted together and output leads shorted together.

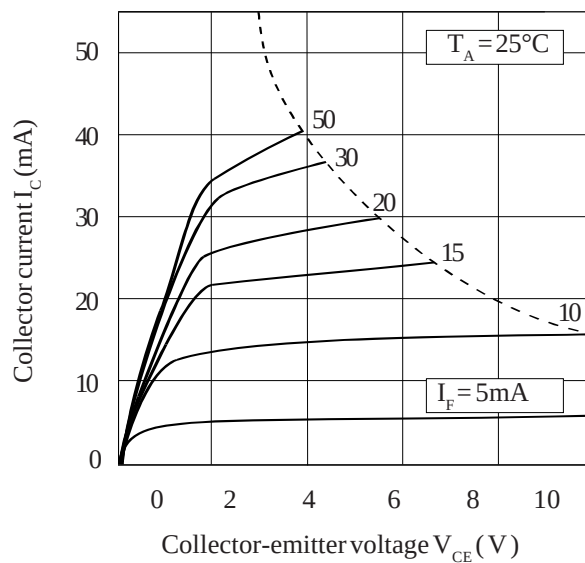
Note 2 Special Selections are available on request. Please consult the factory.

Note 3 Production testing - limits verified with pulse test

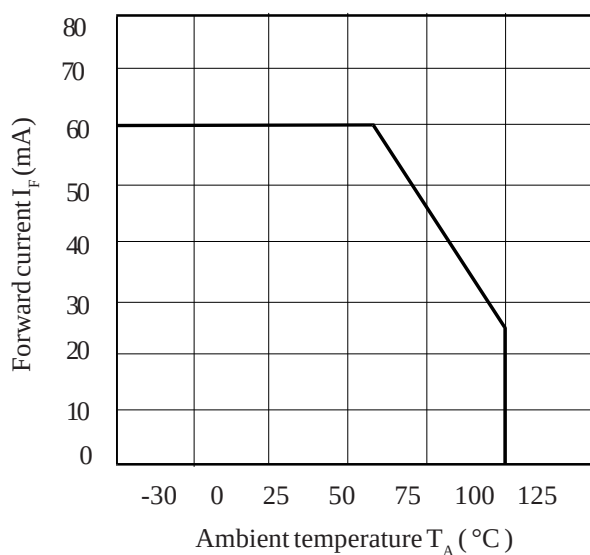
**Collector Power Dissipation vs. Ambient Temperature**



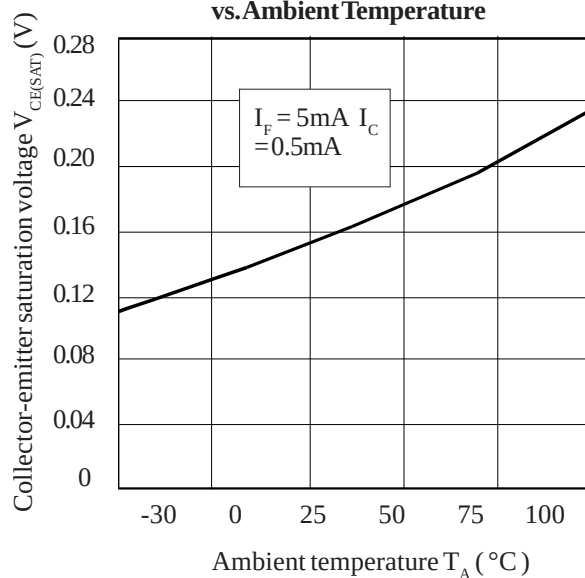
**Collector Current vs. Collector-emitter Voltage**



**Forward Current vs. Ambient Temperature**



**Collector-emitter Saturation Voltage vs. Ambient Temperature**



**Relative Current Transfer Ratio vs. Ambient Temperature**

