

Features

1. SOP package.
2. High collector-emitter voltage.
(V_{CEO} : 300V)
3. High current transfer ratio.
(CTR: MIN. 1000% at $I_F = 1\text{mA}$, $V_{CE} = 2\text{V}$)
4. High isolation voltage between input and output.
(Viso: 3750V_{RMS})

Part Numbering System: Page 2. **Part Marking System:** Page 3.

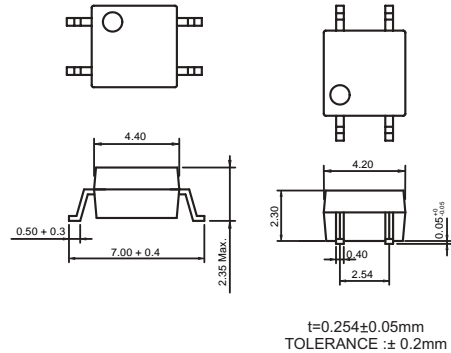
Applications

1. Telephone sets.
2. Copiers, facsimiles.
3. Interfaces with various power supply circuits, power distribution boards.
4. Hybrid substrates which require high density mounting.

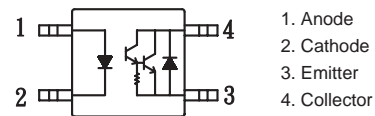
Classification table of current transfer ratio is shown below.

RANK MARK	CTR(%)
E	1000

Outside Dimension: Unit (mm)



Schematic: Top View



Absolute Maximum Ratings

($T_a = 25^\circ\text{C}$)

Parameter		Symbol	Rating	Unit
Input	Forward current	I_F	50	mA
	Peak forward current	I_{FM}	1	A
	Reverse voltage	V_R	6	V
	Power dissipation	P	70	mW
Output	Collector-emitter voltage	V_{CEO}	300	V
	Emitter-collector voltage	V_{ECO}	0.1	V
	Collector current	I_C	150	mA
	Collector power dissipation	P_C	150	mW
Total power dissipation		P_{tot}	170	mW
Isolation voltage 1 minute		Viso	3750	V _{rms}
Operating temperature		T_{opr}	-30 to +100	$^\circ\text{C}$
Storage temperature		T_{stg}	-40 to +125	$^\circ\text{C}$
Soldering temperature 10 seconds		T_{sol}	260	$^\circ\text{C}$

Electro-optical Characteristics

($T_a = 25^\circ\text{C}$)

Parameter		Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input	Forward voltage	V_F	$I_F = 10\text{mA}$	—	1.2	1.4	V
	Reverse current	I_R	$V_R = 4\text{V}$	—	—	10	μA
	Terminal capacitance	C_t	$V = 0, f = 1\text{kHz}$	—	30	—	pF
Output	Collector dark current	I_{CEO}	$V_{CE} = 200\text{V}, I_F = 0$	—	—	1	μA
	Collector-emitter breakdown voltage	BV_{CEO}	$I_C = 0.1\text{mA}, I_F = 0$	300	—	—	V
Transfer characteristics	Current transfer ratio	CTR	$I_F = 1\text{mA}, V_{CE} = 2\text{V}$	1000	—	—	%
	Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_F = 20\text{mA}, I_C = 100\text{mA}$	—	—	1.5	V
	Isolation resistance	Riso	DC500V, 40 TO 60%RH	5×10^{10}	10^{11}	—	ohm
	Floating capacitance	C_f	$V = 0, f = 1\text{MHz}$	—	0.6	1.0	pF
	Response time (Rise)	t_r	$V_{CE} = 2\text{V}, I_C = 20\text{mA}, R_L = 100\text{ohm}$	—	100	300	μs
	Response time (Fall)	t_f		—	20	100	μs

