

## Silicon PNP Darlington Power Transistor

## FW26025A1

### DESCRIPTION

- High DC Current Gain-  
:  $h_{FE} = 5000(\text{Min}) @ I_C = -2\text{A}$
- Collector-Emitter Sustaining Voltage-  
:  $V_{CEO(\text{SUS})} = -100\text{V}(\text{Min})$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation.

### APPLICATIONS

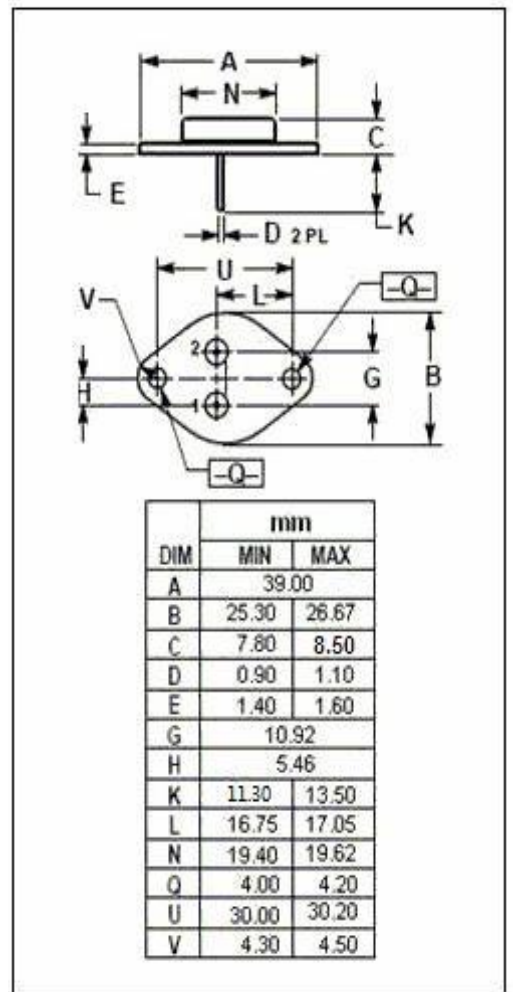
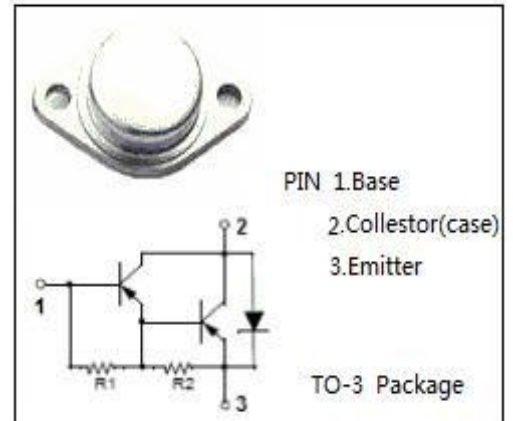
- Designed for linear and switching industrial equipment

### ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ\text{C}$ )

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-100	V
$V_{CEO}$	Collector-Emitter Voltage	-100	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current-Continuous	-20	A
$I_{CM}$	Collector Current-Peak	-40	A
$I_B$	Base Current- Continuous	-0.5	A
$P_C$	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	160	W
$T_j$	Junction Temperature	200	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-65~200	$^\circ\text{C}$

### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.09	$^\circ\text{C/W}$



**ELECTRICAL CHARACTERISTICS**
 **$T_C=25^{\circ}\text{C}$  unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)^*}$	Collector-Emitter Sustaining Voltage	$I_C = -100\text{mA}, I_B = 0$	-100			V
$V_{CE(sat)-1}^*$	Collector-Emitter Saturation Voltage	$I_C = -10\text{A}, I_B = -40\text{mA}$			-2.0	V
$V_{CE(sat)-2}^*$	Collector-Emitter Saturation Voltage	$I_C = -20\text{A}, I_B = -200\text{mA}$			-3.0	V
$V_{BE(sat)^*}$	Base-Emitter Saturation Voltage	$I_C = -20\text{A}, I_B = -200\text{mA}$			-4	V
$V_{BE(on)^*}$	Base-Emitter On Voltage	$I_C = -10\text{A}; V_{CE} = -3\text{V}$			-2.8	V
$I_{CEO}$	Collector Cutoff current	$V_{CE} = -50\text{V}, I_B = 0$			-1	mA
$I_{CEV}$	Collector Cutoff current( $V_{BE} = -1.5\text{V}$ )	$V_{CE} = -100\text{V}, I_B = 0$			-0.5	mA
		$V_{CE} = -100\text{V}, I_B = 0, T_C = 150^{\circ}\text{C}$			-5	
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -5\text{V}; I_C = 0$			-2	mA
$h_{FE-1}^*$	DC Current Gain	$I_C = -2\text{A}; V_{CE} = -3\text{V}$	5000			
$h_{FE-2}^*$	DC Current Gain	$I_C = -10\text{A}; V_{CE} = -3\text{V}$	750		18000	
$h_{FE-3}^*$	DC Current Gain	$I_C = -30\text{A}; V_{CE} = -3\text{V}$	200			

\*:Pulse test:Pulse width=300us,duty cycle≤2%